

THE RAILWAY GAZETTE
A Journal of Management, Engineering and Operation
INCORPORATING
Railway Engineer • TRANSPORT • The Railway News
The Railway Times Herapaths Railway Journal
RAILWAYS ILLUSTRATED ESTABLISHED 1835 RAILWAY RECORD THE RAILWAY OFFICIAL GAZETTE

PUBLISHED EVERY FRIDAY

AT

33, TOTHILL STREET, WESTMINSTER, LONDON, S.W.1

Telegraphic Address: "TRAZETTE PARL., LONDON"

Telephone No.: WHITEHALL 9233 (6 lines)

Annual subscription payable in advance and postage free:

British Isles and Abroad£2 5s. 0d.

Single CopiesOne Shilling

Registered at the General Post Office, London, as a Newspaper

VOL. 73 No. 1

FRIDAY, JULY 5, 1940

CONTENTS

	PAGE
Editorials	1
Letters to the Editor	4
The Scrap Heap	5
Publications Received	6
Overseas Railway Affairs	7
Economic Control of Material	9
An Interesting Locomotive Reboiling Programme	10
The "Axis" Station in Rome	12
Railway News Section	15
Personal	15
Transport Services and the War	17
Stock Market and Table	28

INDEX

An index to the seventy-second volume of THE RAILWAY GAZETTE covering the issues from January 5 to June 28, 1940, has been prepared, and is now available free of charge on application to the Publisher

DIESEL RAILWAY TRACTION SUPPLEMENT

The July issue of THE RAILWAY GAZETTE Supplement, illustrating and describing developments in Diesel Railway Traction, is now ready, price 1s.

NOTICE TO SUBSCRIBERS

Consequent on further paper rationing, new subscribers cannot be accepted until further notice. Any applications will be put on a waiting list which will be dealt with in rotation in replacement of existing subscribers who do not renew their subscriptions.

Annual subscriptions are payable in advance and subscribers are advised to pay their renewal accounts before the expiration of the existing subscription as the dispatch of copies will in all cases be stopped on expiration

TO CALLERS AND TELEPHONERS

Our office hours until further notice are:—

Mondays to Fridays - 9 a.m. till 5 p.m.

Saturdays - 9 a.m. till 12.30 p.m.

The office will be closed on the first Saturday in every month until November 2, inclusive

Welfare of Travelling Troops

IN these anxious days the overwhelming body of public opinion is rightly in favour of according every possible amenity and comfort to members of the various branches of the Forces. Not the least mindful of the claims of the troops are the railway companies, which themselves are strenuously engaged in the common struggle and which have very large numbers of their own personnel embodied in all ranks of the Services. It is therefore the more unfortunate that the widespread publicity, originating in the debate in the House of Commons summarised on page 26, which has been accorded the unsatisfactory welfare arrangements at certain railway stations should have conveyed the impression that this was the fault and responsibility of the railways and that the companies had wilfully resisted or obstructed endeavours to improve the position. It is essential, though sometimes difficult, to preserve in these matters a careful balance between the sentimental and the coldly practical assessment of possible courses of action. Ultimately, in so vital a matter as war-time transport, only the latter must be permitted to have weight in reaching any decision.

* * * *

Physical Limitations

Sight must not be lost of the main duty of the railways, which is to provide and maintain an efficient system of transport not only for the troops but also for the multifarious other national needs of the time. To that end all else must be subordinated. There are other organisations whose function more properly it is to ensure welfare for the troops, but with the greatest goodwill on all sides the age and size of most of our railway stations, often mitigating against the most efficient handling of peacetime crowds, makes it physically impossible to provide the space necessary to translate into practice the ideas of those who are most vocal in support of change and improvement. The railway companies have long given serious consideration to making the passage of troops through the stations as pleasant as possible, keeping in mind all the other pertinent factors, and improvements are constantly being made. The debate in the House and the resultant publicity will have served a useful purpose if it leads to a co-ordination of effort by all the various parties—not omitting the commanding officers who, without true need, sometimes send men on leave at times which render it impossible for them to complete their journeys in ordinary comfort—who must share in the responsibility for the provision of efficient and reasonable amenities for the Forces.

* * * *

Indian Railway Annuities

Sir James Brunyate's speech at the annual meeting of the East Indian Railway Company on June 26 served to clear up the many misapprehensions which exist as to the position of Indian railway annuities. In the case of the East Indian Railway, each "B," "C," "D" annuitant, as distinct from the "A" whose interest expires in February, 1953, has two interests: he is entitled to receive the annuity from the Government of India half-yearly up to February, 1953; he has an interest in a sinking fund. Each annuity payment includes capital as well as interest, and in 1953 the capital liability of India will cease. There is often misunderstanding as to the sinking fund. Annuitants are not in the position of stockholders who have the right to repayment at a given date of a fixed par value. The capital payment which will be due to each in 1953 will be a proportionate share of the amount actually accumulated in the relevant sinking fund. When the Indian railway sinking funds were created last century it was calculated that the amounts withheld and paid to the

sinking fund of the East Indian Railway would by 1953 yield £22 4s. 5d. for each £1 of annuity, but interest has changed so much since then, and in all probability will continue to vary so greatly in the future, that it is now impossible to calculate the sum that will then be available.

* * * *

Concrete Units on American Railways

The extensive use of precast concrete on American railways is indicated in a brochure entitled "Concrete for Railways" published recently by the Portland Cement Association of Chicago. Descriptions are also given of some of the depots from which units are produced. One of the earliest, which has been in continuous operation for 30 years, is that of the Chicago, Burlington & Quincy Railroad in Nebraska. In the depot of the Missouri Pacific Railroad the processes of manufacture have been largely mechanised, and units of practically any size or shape required can be produced. Several new type units have emanated from this source. The American practice of using 24-in. octagonal concrete piles for railway trestles is one example, and another is the employment of precast sub-ballast slabs for supporting track on unstable formations. The speed with which the company works is instanced by the removal of an old timber pile trestle and its replacement by a new double-arch concrete culvert in 105 minutes without delaying traffic. Bridge and culvert construction with precast units is a specialised feature of another casting yard owned by the Central Railroad of New Jersey. When this company elevated its two intersecting lines at Elizabeth Port, 16 bridges over streets and two over railways were constructed, without interrupting the 650 trains which use the lines daily. The use of precast units helped in solving the problems involved, and bridges of good æsthetic appearance were erected. New stations in the same district are built with precast units.

* * * *

Locomotive Chimneys

The chimney, as ordinarily understood and as applied to a wide variety of purposes, is regarded as a somewhat prosaic object, inspiring perhaps in the giant forms used at brickworks, power stations, and other industrial establishments, but seldom so when adapted to the more widespread function of providing a link between the domestic fire and the atmosphere. With the locomotive it is different, for many of those interested contend that the shape and proportions of the chimney alone can make or mar the appearance of the engine as a whole. The preference in this country is for the more ornamental shapes, and in one notable instance the copper top is still retained for several passenger classes. As a general rule, however, the chimney takes the form of a unit casting, and this method leaves the designer still free to adopt the shape he likes. The plain chimney, either cast or fabricated, almost universally used on Continental railways, in the United States, and elsewhere, is perhaps cheaper and in a practical sense performs its purpose just as well, but bitter things are sometimes said about it by those who view the locomotive mainly from the æsthetic standpoint; indeed many of them would presumably be more ready to discard their comfortable soft hats for a topper than agree to the replacement of the ornamental locomotive chimney by one of the stovepipe pattern.

* * * *

Higher Prices for Iron and Steel

As from the beginning of this month prices of iron and steel have been raised by an Order made by the Minister of Supply, the effect of which is to substitute a fresh schedule of maximum prices for iron and steel products. The new prices represent an advance of from 3s. 6d. to 9s. a ton

for pig iron and from 22s. 6d. to 27s. 6d. a ton for billets, with corresponding adjustments for other products. In making these advances the Iron & Steel Control states that they arise in the main from the necessity to meet from a central fund further abnormal costs of imported materials under present conditions. Also included in the higher levels now authorised is some allowance for the rises which have taken place in manufacturing costs since the outbreak of war, including recent increases in scrap prices and in railway rates. The additional charge arising from the need to strengthen the central fund, together with the increase in scrap prices last April and May and the advance in railway charges from the beginning of May, account for about £1 of the higher prices for finished steel now operating. The balance of the increase is intended to meet in part other increases in costs. To the extent that the makers have to bear the remainder of the increase in expenditure there is bound to be some reaction on pre-war profit margins. The latest price advance at least provides evidence of the Government's intention to maintain a reasonable profit margin for controlled, as well as other, industries.

* * * *

Machine Tools in the Armament Drive

The Minister of Supply has frequently stressed the supreme importance of an adequate supply of machine tools to the success of the present national effort to create vast masses of the essential munitions of war, and he dealt with the matter at some length in the House of Commons on June 27. There can be no doubt that the element in supply of machine tools is such that all sources of production must be tapped. These may be classified as machine tool manufacturing concerns in this country, second-hand machines in private hands, American and other foreign supplies of new and second-hand machines, and lastly, idle plant in this country. The full sources of production at home are being used and now amount to some £150,000,000 worth of tools a year, equal to an increase of about 50 per cent. Imports from abroad are running at a value of £1,500,000 a month, and, as was stated in THE RAILWAY GAZETTE of June 7, a census has been taken in this country to ensure that the maximum use is made of all available machines. The Machine Tool Control now has power to requisition any plant which is idle but capable of being put to effective use. In all, it is calculated that additions up to 80,000 machine tools a year are being made available.

* * * *

Centenary of the Hull & Selby Railway

Last Monday marked the one hundredth anniversary of the arrival of the railway at Hull. On July 1, 1840, the 30½-mile Hull & Selby Railway was opened amid great rejoicings, for Hull had secured a most important trade route to the Midlands and West Riding of Yorkshire by means of this line and the Leeds & Selby Railway which had been completed six years previously. The four trains used on July 1, 1840, were hauled by locomotives bearing the names of *Exley*, *Andrew Marvell*, *Kingston*, and *Selby* and built by Fenton, Murray & Jackson of Leeds. Passenger and parcels traffic between Hull and Selby began on the next day; four trains were provided each way on weekdays and two on Sundays. Goods traffic began on August 19. The Hull & Selby Railway, now an important main line of the L.N.E.R., was at the time of its construction the most level line in the United Kingdom and one stretch of 18 miles was completely straight. About 17 miles were laid with longitudinal sleepers and the remainder with transverse sleepers. Rails were flat-bottomed and laid to a gauge of 4 ft. 9 in. The passenger and goods stations at Hull were on the west quay of the Humber dock, side by side, with a roadway between. The passenger station was stone fronted and consisted of booking offices, parcels office, and waiting rooms, with the head offices of the railway company above. The station itself consisted of four lines of rails and two platforms which were roofed over. It soon proved unsuitable, being away from the centre of Hull, and so a new station named Paragon was opened ten years later and enlarged in 1904. The Hull & Selby Railway was taken over by the York & North Midland Railway exactly five years after its

opening. The York & North Midland was in turn absorbed by the North Eastern Railway in 1872, and a little over 50 years later that railway became one of the constituents of the L.N.E.R.

* * *

Cowcatchers and Couplers

In the days before automatic couplers, the cowcatcher, or, as it is now called, the pilot, on American locomotives was a long pointed grid projecting well ahead of the locomotive. The front coupler was merely a long pole, hinged and hung along the ridge of the cowcatcher, offering little menace as a projection to smash or impale any obstruction which the cowcatcher was designed to throw off the line. With the substitution of the automatic for the link-pin coupler, the pilot gradually became smaller, until now the coupler head projects well beyond the point of the pilot on most locomotives. Thus, when an object is struck, the coupler has a tendency to push it down and under the engine, and so tends to frustrate the original purpose of the pilot. With the introduction by the Baltimore & Ohio Railroad some years ago of high-speed trains, Mr. Daniel Willard, President of the company, decided that the old-fashioned prow shape of the pilot should be restored, and the automatic coupler kept clear of it behind a hinged door having the same contour as the pilot. On the first locomotive so equipped the pilot door was manually raised, and the coupler pulled out to the operative position, but on later locomotives pneumatically-operated apparatus, controlled from the cab, has been fitted.

* * *

American Rolling Stock Problems

The heavy trailing loads and high speeds of American air-braked freight trains, both constantly on the increase, have led to intense concentration on the design of the stock. Similar conditions in the operation of passenger trains have led to more spectacular but less widely-applied developments in the construction of passenger cars. The modern steel and aluminium alloys used for new rolling stock in the U.S.A., and the mechanical and operating problems encountered, were described most succinctly by Mr. D. S. Ellis, Chief Mechanical Officer, Chesapeake & Ohio Railroad, in a paper entitled "Railway Car Engineering" presented to the American Society of Mechanical Engineers in November, 1939. As a result of the general air-conditioning of long-distance cars in the U.S.A., it has been possible to reduce the height from floor to roof without impairing the atmospheric conditions inside the vehicle, and this feature alone has permitted a reduction in weight conjointly with an increase in the strength of the body frame. Mr. Ellis suggests that as for some years the new problems arising have received individual treatment from many hands, the time may be ripe for the pooling of experience and the evolution of something approaching a standard design, in order to reduce production costs and time, and to stimulate interest among those railways which have not yet carried out extensive modernisation of their main-line stock.

* * *

Empty Drawers

In peacetime we should grumble at finding a station with every penny-in-the-slot machine on its four platforms empty, letting us down at a moment when we stood in great need of matches. In war, on the other hand, we are inclined to read into such episodes evidence of a suitable preparedness against surprise attack. Everyone is by now familiar with the odd miscellany of equipment conveyed by the enemy parachutist as he floats to earth, and it will be evident that such a man is most likely to be attracted by the corresponding variety of foodstuffs and other necessities obtainable from the penny-in-the-slot machine—that multiple store at which no questions are asked. We have no precise information as to how long life can be supported on a diet of chocolate cream, throat pastilles, and toffee, but in some cases we should imagine it is longer than desirable. We regret, then, that we cannot reveal the station at which the excellent precaution of emptying the slot machines had apparently been taken. It must remain—as in fact it now is—nameless.

Hong Kong and Its Railway

OPERATIONS on the British section of the Kowloon-Canton railway, 22 miles in length, which in normal times forms the link between the Crown Colony of Hong Kong and the interior, were limited throughout the year 1939 to the local traffic, the frontier having been closed on August 16, 1938, as a consequence of the Sino-Japanese conflict. With the total cessation of all through traffic, which had been the principal source of earnings, receipts from goods traffic fell to a nominal figure, and gross receipts amounted to less than half the 1938 total. The number of local passengers increased but this did not compensate for the through traffic with its higher fares. The continued use of the railway land for the storage of cargo consigned to China added to the receipts. The fact that 1938 was a record year for goods receipts makes the comparison with 1939 even more striking. General operating results compare as follow:—

	1938	1939
Passenger journeys	2,219,764	1,945,637
Goods, tons	482,070	37,146
Operating ratio, per cent.	50.97	85.88
	\$	\$
Passenger receipts	811,930	660,698
Goods receipts	649,980	40,646
Gross receipts	1,901,883	911,047
Working expenditure	969,465	782,434
Percentage net operating revenue to capital expenditure	4.50	0.62

The net operating revenue was \$128,613 (against \$932,418), and, after making provision for all interest charges, the net surplus was \$21,168, which was applied to the reduction of the accumulated deficits brought forward from previous years, which still total \$6,735,070. The railbus shuttle service between Taipo Market and Fanling continued to give excellent results, and the gain resulting from the elimination of the uneconomic overlapping of road and rail services may be gauged from the fact that rail earnings on this section have increased from \$1,714 in 1937 to \$15,990 in 1939, this striking advance having been achieved with an increased annual cost of only \$5,330. The two stations in question afford alternative communication with China.

As regards working expenses, the exceptional conditions prevailing during the year made any retrospective comparison more academic than useful. On February 21, 1939, Japanese aeroplanes bombed Shum Chun and Lowu stations, and considerable damage was done to a train and to the track and equipment, although fortunately there were no casualties. On the last day of the year the British border was reopened by the evacuation of the Japanese. Prospects, the report says, are not particularly bright. The improbability of any resumption of through traffic or any advance in local passenger receipts, with an expected fall in rentals and a considerable rise in expenditure due to the war in Europe, will make it necessary to pursue a cautious financial policy.

Meanwhile, it is difficult to forecast even the immediate future. Latest news reports the evacuation of all women and children from Hong Kong, in the first instance to the Philippines. Also both road and railway bridges over the Shumchun river, which separates British territory from Japanese-occupied China, have been demolished as a precaution, presumably so that there shall be no temptation to the Japanese troops massed on their side of the border to violate the portion of our Empire on the mainland, opposite Hong Kong and behind Kowloon, through which the railway runs. The demolition of the railway bridge in itself does not interfere with rail traffic, which now terminates at the border in any case, but the absence of both

bridges presupposes complete cessation of trans-border movement of all kinds, and a further reduction in already slumped railway receipts.

* * * *

The London & Blackwall Cable Railway

IN the midst of a world war it is natural that many transport and industrial centenaries should be passing unnoticed, but one which falls tomorrow, namely, the opening of the London & Blackwall Railway, is deserving of record, although the present circumstances make any formal celebration impracticable. The undertaking was formed on July 28, 1836, when the Commercial Railway Company secured its Act of incorporation with powers to build a line from a terminus at the Minories to a station alongside Brunswick wharf, Blackwall, about 3½ miles. A further Act, passed in 1839, changed the name to the London & Blackwall Railway, and authorised an extension from the Minories to Fenchurch Street. The original section, built on arches, was opened on July 6, 1840, and it is the centenary of this event which falls at the present time. There were many unusual features about this railway in its early days, some of which were that it was built to a gauge of 5 ft. 1 in., that a peculiar form of cable operation was adopted, that every train had slip coaches, and that Cooke & Wheatstone's single-needle telegraph was installed to signal when the cable-winding engines were to be started. At the time of the opening there were intermediate stations at Limehouse, West India Docks, and Poplar. Stepney was opened shortly afterwards (apparently on August 3), Shadwell on October 1, 1840, and Cannon Street Road about 1842.

Near each end of the line, at Minories and Poplar, there were winding engines for each track and both left- and right-hand tracks were used alternately for "up" and "down" trains. One complete train seems to have been based on Minories and one on Blackwall. The Minories train was attached to the rope extending from Poplar and was hauled to Poplar by this. To this train was attached the Minories rope, which it unwound in the course of its journey. Individual carriages were slipped at the intermediate stations and were left there, but the winding engine continued to haul until the front portion of the train had completed the journey. On the return trip every carriage was attached to the Minories rope at whatever point it had been slipped and all started simultaneously. They were thus hauled into Minories separately, and the train did not become assembled again until the Blackwall portion itself arrived, trailing a Poplar rope ready for the next trip. Apparently similar procedure applied to the other line (which was opened on August 3, 1840), excepting that this train was based on Blackwall and dropped its carriages intermediately so that only the front part of the train reached Minories. Thus it was possible to travel from intermediate stations either to Minories or Blackwall by one or other of the trains, but it was not possible to travel between any two intermediate stations. The section between Poplar and Blackwall was traversed by momentum up the slight rise to Blackwall, and by gravity from Blackwall, and the cable attached at Poplar. The extension from Minories to Fenchurch Street was opened on August 2, 1841, and was worked similarly by gravity, "being started by a very slight push from the porters in attendance." For a short time Fenchurch Street was used on weekdays only, and trains started on Sundays at Minories. Moreover, on Sundays trains ceased running "from 10½ till 1, being the hours of church service."

When the whole line was in operation, it seems that on one track Fenchurch Street, Minories, Cannon Street Road, Shadwell, and Stepney, were connected with Blackwall; and on the other track Blackwall, Poplar, West India Docks, Limehouse, Stepney, and Shadwell, were connected with Fenchurch Street. In 1845 a separate company, called the London & Blackwall Extension Railway Company, was formed to build a line from Stepney to the Eastern Counties Railway at Bow. The Act also provided for the sale of the undertaking to the London & Blackwall Railway, and this was effected shortly afterwards. This connecting link was completed by the end of 1848 and was inspected by the Board of Trade on December 21 of that year, but it was not

opened until April 2, 1849. This opening coincided with the inauguration of locomotive traction in replacement of cables on the London & Blackwall itself, which was converted at that time to standard gauge. The London & Blackwall Railway was leased to the Great Eastern Railway by Act of June 19, 1865, but retained its corporate identity until its absorption into the L.N.E.R. at grouping in 1923. The passenger service disappeared with the general strike of May, 1926, and has never been restored.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents.)

Railway Stock Quotations

25, Victoria Street, S.W.1, June 28

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Existing Stock Exchange quotations for British railway securities call for immediate consideration, if a major crisis is to be avoided. This market covers securities with a nominal value of £1,100 million, so sales are unavoidable, if only on account of deceaseds' estates. Yet the offer of quite small quantities results in a sharp marking down of values. What is urgently needed is an authoritative statement of the work which railways are doing. Weekly traffic returns cannot be expected, but stockholders are entitled to a regular statement. Such information would only witness to a whole-hearted effort to increase production and could be of no possible use to the enemy. At the present time, for example, there is every indication that the L.M.S.R. is working to capacity, and in normal times the company would be earning its Standard Revenue; yet share prices are as low as they have ever been.

An authoritative statement upon possible war damage is also urgently needed. Weak holders of railway stock apparently fear much more damage than seems at all probable. British railways are very widely extended, unlike much factory plant, which might be put out of operation by a single explosion. Moreover, the railways are an essential part of our war machine, and if the lines were bombed badly the damage would necessarily be remedied immediately, if necessary, with the aid of the Royal Engineers. Nor is the £10,000,000, which the Government agreement puts aside for war damage in any single year, a negligible amount. It should cover all likely damage.

In spite of these considerations preference stocks fell 10.9 per cent. during May, and ordinary stocks declined by 20.3 per cent. By comparison, commercial and industrial shares, which were also weak, showed an all round fall of about 7 per cent. An authoritative summary of these and similar arguments, possibly sponsored by the chairmen of the four main lines, would certainly have a reassuring effect on the Stock Exchange. In my judgment, it is the due of those who put their savings into a public utility, which is all important in time of war.

It would also be reassuring to be told definitely the position of railway stockholders in relation to the possible £3,500,000 of profit mentioned in Clause 3 of the financial agreement with the Government. The Finance Act indicates the pre-war net revenues may be determined by the profits in 1936 and 1937, so Clause 3 of the White Paper doubtless holds good.

In brief, the reason for the exceptional fall in British railways is that investors have certain basic facts out of focus. Is it not up to those in authority to correct such errors?

Yours faithfully,

CHARLES STUART-WILLIAMS

Chairman, The British Railway
Stockholders Union Limited

B.S. LEADED GUNMETAL CASTINGS AND INGOTS.—B.S. Specifications have just been issued for two further leaded gunmetal alloys of the compositions 85/5/5/5 and 87/9/3/1 respectively. Copies may be had from the British Standards Institution, 28, Victoria Street, London, S.W.1. B.S. 879 and 898 in one volume 2s. 3d. post free, and B.S. 900 and 901 in one volume, price 2s. 3d. post free.

THE SCRAP HEAP

Mrs. Sarah Neville, of West Parade, Rhyl, celebrated her 101st birthday on June 24. She is well known to North Wales railway travellers, for she was manageress of the refreshment rooms at Rhyl station for over fifty years, retiring only when she was 98 years old.

It was announced on June 27 by Mr. Arthur Deakin, Acting General Secretary of the Transport & General Workers' Union, that the executive council of the union had considered the appeal of the Chancellor of the Exchequer, and had agreed to place £250,000 at the disposal of the Government free of interest.

THE RAILWAY PRESS IN 1845

A recent office spring-cleaning, writes a correspondent, resulted in the discovery of a fat volume marked "Railway Register—Vol. I" on the back. Its full title proved to be "The Railway Register and Record of Public Enterprise for Railways, Mines, Patents, Inventions. Edited by Hyde Clarke, Esq. Volume I. 1844-5. London: John Weale, Engineering and Architectural Library, 59, High Holborn. MDCCCXLV." After the dedication there are two "addresses," which are in the nature of lectures on the value of the railway system to the national and private interest. The second address deals with many subjects, among them what would now be called the technical press. It says: "The Railway Magazine" founded in 1834, by Mr. George Walter, the late Resident Director of the Greenwich Railway, as a repre-

sentative, in a monthly form, of the railway interests. This was followed by *The Railway Times*, a weekly newspaper, conducted with energy, and which compelled the publication of *The Railway Magazine* as a weekly newspaper, which it still remains under the name of *The Railway Journal*. . . *The Railway Record* was brought forward under the editorship of Mr. John Robertson, the most experienced member of the railway press, and another, *The Railway Chronicle*, which is of a more scientific character and regarded as the representative of some of the Liverpool interests. Last of all, an *Irish Railway Gazette* has recently been established to express the sentiments of railway-men in the sister isle."

STATIONS BY SOUND

Blind people are quick to notice different sounds, some of which they use as guides and some as warnings. From travelling frequently up and down our three northern main lines I have come to know each of the principal stations by its individual sound. Crewe has a different sound from Rugby, Derby from Leeds, Grantham from Peterborough, and so on. There are, of course, many sighted people who from constant travel learn the different sounds of a railway line, and engine-drivers know them well. But in the blind the sense is usually developed to so high a degree as to respond to what might seem soundless. Some call the faculty a sixth sense, but I believe it to be simply a refinement of one of the senses common to mankind, or possibly



"What station is this, please?"

"Ar, and out you pops with a parachute—I'm not tellin' of 'ee."

Reproduced by courtesy of "The Star"

of two of them, hearing and touch.—From "A Blind Musician looks Back," an autobiography by Alfred Hollins.

MIDLAND COUNTIES RAILWAY.—On Monday se-naight, the ceremony of laying the first block for the permanent rails, took place on that part of the line near to and in the parish of Chilwell; a large party of ladies and gentlemen assembled to witness this interesting event; the national anthem was sung, in which all parties present most enthusiastically joined. In the afternoon a large party of gentlemen, friends of the contractors, partook of a splendid dinner at Mr. Harwood's, Beeston. Thomas Murphy, Esq., civil engineer, in the chair. The following toasts were given: "The Queen," with three times three and one over. "Prosperity to the Midland Counties Railway," with similar honours.—From the "Derby Mercury" of August 22, 1838.

GERMAN PHRASE BOOKS

Many of us may have experienced grim amusement upon hearing of the sequence of phrases in their new German-English books, issued for the invading troops. These commence:—

"Are you the Mayor?"

"Where is the cash?"

"How much have you?"

"If you lie, you will be shot!"

That the Teuton mentality has not changed very much is evidenced, however, from a phrase book which my grandmother had picked up when travelling in Prussia. This commences brightly with the following series:—

"Good Morning!"

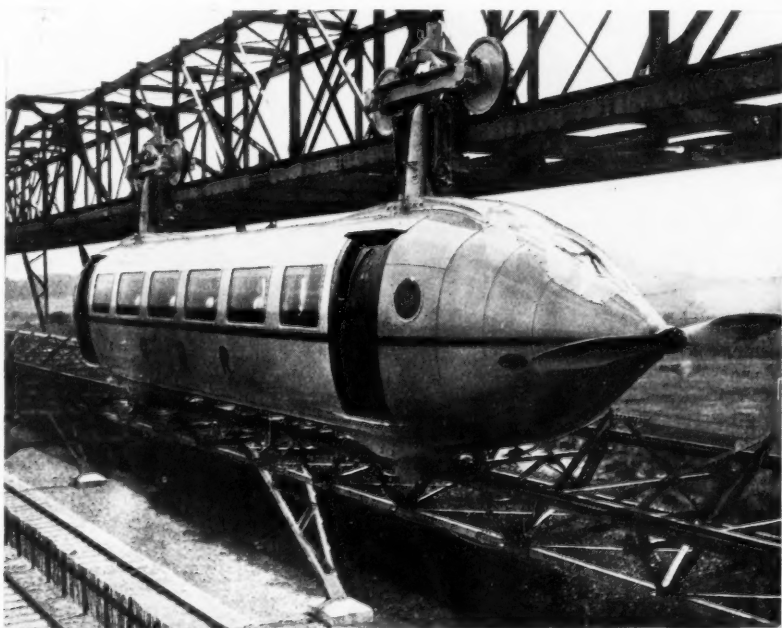
"Our Postillion has been struck by lightning!"

"The horses are soon dead."

"My wife's maid has a tumour."

"Answer me, Knave, or I will have the Police beat you!"

"L. W. V." in a letter to "The Times."



The demonstration section of Bennie railplane at Milngavie, Glasgow, which was erected in 1929 and is now being dismantled for scrap (see page 18)

PUBLICATIONS RECEIVED

Concrete for Railway Construction.—A very well produced booklet issued by the Cement & Concrete Association, 52, Grosvenor Gardens, London, S.W.1, lies before us, the purpose of which, according to the foreword, is to indicate what has been done, or can be done, by the railways in the direction of economical construction by the use of Portland cement concrete. The purpose has been well achieved, for in the space of some 50 pages almost every conceivable type of concrete construction is briefly described and suitably illustrated. Indeed, the photographic reproductions are exceptionally well chosen and pleasing. Concrete construction cast *in situ* is exemplified by pictures of handsome new stations both in this country and

abroad, concrete roads, level crossings, viaducts and bridges, locomotive coaling plants, and counterforts in clay cutting. The variety of precast concrete articles which find a use on railways is legion. Among items illustrated are fencing of various types, paving slabs, sectional buildings, posts of various sorts, footbridges, stairways, crib-walling, beams for bridges, and tunnel sections. Cementation is exemplified by the work carried out in waterproofing the Severn tunnel, and the use of gunite to repair the defective masonry and even the woodwork of coaling staithes is instanced. Although there are few railway construction engineers who would not find much of use and interest in this brochure, the present conditions of paper rationing

will limit the distribution. Nevertheless, we understand that the Cement & Concrete Association will be pleased to send copies to interested railway engineers, as far as possible, on request.

PETER BROTHERHOOD LIMITED.—At the annual meeting on June 25 at Winchester House, E.C., the Chairman, Mr. Alexander Marcus Neal, said that the question of machine tools was constantly in the minds of the directors, and increased output had demanded, and would continue to demand, considerable expenditure on plant and machinery. The directors were satisfied that the plant was fully up to date and capable of dealing with any demands which might be made on it. It was proposed to set aside £10,000, as last year, for special depreciation of machine tools and machinery.

The First Railway Journey in Literature

By Kenneth Brown

To Miss Elizabeth Isabella Spence (1768-1832), writer of "novels and accounts of travel" belongs—I maintain—the distinction of being the first author to publish an account of a passenger journey by rail. In 1809 Miss Spence issued her "Summer Excursions through parts of Oxfordshire, Gloucestershire, Warwickshire, Staffordshire, Herefordshire, Derbyshire, and South Wales," two little duodecimo volumes consisting of letters from herself to the Dowager Countess of Winton. Of these letters No. XIV in the second volume, dated Swansea, August 3, 1808, contains the following passage concerning her journey on the Oystermouth (now Swansea & Mumbles) Railway:—

"I never spent an afternoon with more delight than the former one in exploring the romantic scenery of Oystermouth. I was conveyed there in a carriage of a singular construction, built for the convenience of parties, who go hence to Oystermouth to spend the day. This car contains twelve persons and is constructed chiefly of iron, its four wheels run on an iron railway by the aid of one horse, and is an easy and light vehicle."

The Oystermouth Railway on which this journey was made was the first passenger railway in the world. It was incorporated on June 29, 1804, by the Statute 44 Geo. III, cap. 55; was opened for goods traffic by April, 1806; and was first used for the regular conveyance of passengers from March 25, 1807, in a vehicle provided by Benjamin French, who, having paid £20 in lieu of tolls for the first year, combined with two others to offer in the next year from Lady Day, 1808—during which Miss Spence made her journey—the increased rental of £25 per annum.* The company's Act con-

tained no express power to convey passengers, and the first railway to take such a power was the Monmouth Railway by its Act (50 Geo. III, cap. 123) passed on May 24, 1810,† when the passenger services had been successfully run on the Oystermouth Railway for over three years.

Miss Spence's description of the car in which she travelled as being "constructed chiefly of iron" is interesting as tending to confirm the statement in the souvenir (Electrification of the Mumbles Railway, 1928, page 12) published by the South Wales Transport Co. Ltd. (the present lessee of the line) that "the original passenger vehicles were improvised from mineral wagons, but in 1816 special covered coaches were constructed for the service." It is, however, clear that such covered coaches were inaugurated before 1816 because in "A Description of Swansea and its Environs" published at Swansea in 1813 by David Jenkin‡ it is stated (page 12):—

"There is a carriage somewhat resembling the long coaches near the metropolis, which twice a day goes and returns from Swansea and the Mumbles carrying sixteen passengers. Many pleasant parties are formed by this conveyance, and by taking the first that goes down in the morning, and returning with the latest in the evening, much of the beautiful marine scenery may be seen within a few miles, for the small expense of two shillings each person."

Moreover this type of 16-seat vehicle must have superseded Miss Spence's iron clad 12-seater by 1811, when

† "A History of British Railways down to the year 1830," by C. F. Dendy Marshall (1938), page 63.

‡ In the appendix to this 1813 edition there appears the entry "TRAMROAD CARR. Benjamin Rose on the Quay" and in the New and Improved Edition (1826) the name of "Simon Llewellyn" supersedes that of Benjamin Rose and incidentally "Carr" is docked of its supernumerary "r."

Nicholas Carlisle published his "Topographical Dictionary of Wales," in which he said:—

"A Rail-way has been carried within the last three years from Swansea to the Mumbles along the sea shore; by which Coals and Manure are brought down and Limestone is taken back. A Car upon Tram wheels and carrying about 16 or 18 persons goes and returns twice every day during the Summer, down to the Mumbles; each passenger paying a shilling fare: it is convenient for the sea-faring people and others and the Proprietor amply repays himself; who has permission for the Rail-road Company to run this car upon paying a small sum annually."

The views of Miss Spence and the author of "A Description of Swansea" as to the pleasure of travelling on the Oystermouth Railway were by no means shared by one Richard Ayton, who in "A Voyage Round Great Britain undertaken in the Year 1813" (London, 1814, Vol. I, page 71) wrote the following:—

"We made an excursion to Oystermouth a village near the western extremity of Swansea Bay, in the tram car, a singular kind of vehicle established for the accommodation of visitors to this place. It is a very long carriage, supported on four low iron wheels, carries sixteen persons, exclusive of the driver, is drawn by one horse, and rolls along over an iron rail-road, at the rate of five miles an hour, and with the noise of twenty sledge hammers in full play. The passage is only four miles, but it is quite sufficient to make one reel from the car at the journey's end, in a state of dizziness and confusion of the senses that it is well if he recovers from in a week."

Although Elizabeth Isabella Spence achieved the honour of being included in the "Dictionary of National Biography," surely her soundest claim to be named amongst the immortals is the fact, therein unrecorded, that, first among all fare-paying passengers, she it was that set down in a printed book an account of a journey made by rail. So, though rude *Blackwood* might jeer—as it did—at thy writings, let the railway enthusiasts of Britain, acclaim thee, O Elizabeth Isabella, as a pioneer.

* Letter from Charles E. Lee in THE RAILWAY GAZETTE of June 9, 1939, page 930, containing information derived from the minute books of the Oystermouth Railway.

OVERSEAS RAILWAY AFFAIRS

(From our special correspondents)

ARGENTINA

El Tucumano Services

In the new winter timetable of the Central Argentine Railway, which came into force on April 15, the timing and composition of El Tucumano air-conditioned express between Buenos Aires and Tucumán have been modified. This service, which has been in operation since April, 1939, is now twice-weekly instead of weekly, leaving Buenos Aires on Wednesdays and Sundays at 8.45 p.m., stopping at Rosario and other important intermediate stations, and arriving at Tucumán at 7 p.m. on Mondays and Thursdays. On Mondays connection is made at Tucumán with the State Railways for Salta and Jujuy. On the return trip the train leaves Tucumán on Wednesdays and Fridays at 9 a.m., Wednesday's train combining with the State Railways service from the north. El Tucumano is now composed of first and second class day coaches, sleeping cars, and a dining car. Also, between Rosario and Tucumán (in both directions) it is equipped with a dining car and semi-Pullman, both air-conditioned, available free of charge to passengers possessing bed tickets. The addition of the latter vehicle to serve as a club car should prove a popular innovation with sleeping car passengers, who have also the air-conditioned dining car at their disposal.

Institution of Mechanical Engineers (South American Branch)

The opening meeting of the current session of this branch was held in Buenos Aires on May 6, when the Chairman, Mr. A. T. Nickson, delivered his inaugural address. After thanking the members for electing him Chairman for the second successive year, Mr. Nickson referred to the emergency created by the war, in which, he said, every section of engineering would be called upon to play its part. The particular part of mechanical engineers was to discover and design mechanical ways and means; perhaps to change some of the conservative methods, the better to assist the progress and development of the fast-moving war machine, and the better development of the machinery which would be required to follow in the peace period.

Referring to the question of student classes, the Chairman reminded the meeting that, last year, a class was formed to give instruction to engineering apprentices who wished to become members of the institution, and might find it difficult to acquire the necessary technical instruction to enable them to pass the examinations. As a result of the experience gained during the past year, the technical training of apprentices had been dealt with by the committee, which had also had the benefit of the advice of two railway mechanical

engineers, who attended one of the meetings and gave their opinions in the light of their own personal experience in the matter. The Chairman stated that it was intended to hold three of these classes every week in future instead of only one; two of these would be for general subjects and one for chemistry. He also mentioned that the President of the Central Benevolent Fund of the institution in London, Mr. D. E. Roberts, had issued an appeal to corporate members to commemorate the silver jubilee of the fund by raising the sum of £10,000 additional capital in order to put the fund on a sound financial basis. The question of the best way in which the branch could co-operate and subscribe was discussed at the meeting. The Chairman then voiced the regret of those present at the departure of the Honorary Secretary, Mr. J. E. Spence, Works Manager of the Shell-Mex Company since 1931, who was leaving for England at the end of May, and wished him good luck.

Collision on Central Argentine Railway

The immunity from serious accidents which the Central Argentine Railway has enjoyed for many years was broken on May 2 by a collision, which occurred at a block station between Campana and Zárate, on the main line from Buenos Aires to Rosario, resulting in one death and injuries to four other persons. From information available at the moment, it appears that in the early morning, before daybreak, a train of 37 empty cattle trucks had been shunted from the up to the down line in order to allow a diesel-driven two-coach passenger train to pass. Unknown to the driver and guard of the cattle train, and to the signalman on duty at the block station, a coupling became disengaged, and several trucks were left behind when, as was thought, the move had been completed. The signalman, believing the line to be clear, accepted the diesel-driven train which, proceeding at high speed, collided violently with the detached trucks. The driver of the passenger train was killed instantly, and the guard and three passengers badly injured.

UNITED STATES

Freight Carloading Efficiency Record

The Association of American Railroads announces that a new high record in freight car loading efficiency was established by American railways in 1939. In that year the average paying load for all commodities was 36.8 tons per car loaded, and exceeding by one-tenth of a ton the previous record established in 1937. If the total carload traffic in 1939, which was handled in 24,119,000 cars with

this average paying load, had been loaded only to the average reached in 1932 of 34.9 tons a car, it would have been necessary to handle 1,313,000 more carloads to move the goods.

Hiawatha's Fifth Anniversary

The fifth anniversary of the Hiawatha of the Chicago, Milwaukee, St. Paul & Pacific Railroad between Chicago and the Twin Cities occurred on May 29. In these five years the Hiawatha and its overflow sections have carried nearly 1,500,000 paying passengers, an average of over 800 daily, not including passengers carried on the Morning Hiawathas, which were added to the service in January 21, 1939. The two original Hiawathas each consisted of six cars hauled by a streamlined Atlantic type locomotive. Later two more cars were added, and in October, 1936, the original cars, which were ordinary stock reconconditioned for the service, were replaced by two trains each of nine new cars, and two additional streamlined Atlantic locomotives were built. In September, 1938, the whole train was re-equipped, and six new 4-6-4 locomotives were built of a power sufficient to keep to the very fast schedule when hauling 14 cars. An indication of the success from the railway company's point of view of these high-speed trains is given by the fact that in the first four years of their service the net earnings per train-mile worked out at \$2.44. [A description of the Hiawatha train and locomotives appeared in THE RAILWAY GAZETTE of June 9, 1939 (page 937).—Ed., R.G.]

CANADA

Dominion Atlantic North Mountain Branch

By an order dated April 19, the Board of Transport Commissioners for Canada authorised the Dominion Atlantic Railway Company to discontinue working its regular passenger service on the North Mountain Branch between Centreville and Weston, N.S., as from April 30. The same matter was raised before the Board of Transport Commissioners in 1936, when the Dominion Atlantic Railway wished to discontinue the passenger service on this 14½-mile branch, but at that time there was some local opposition which resulted in the board's order of October 2, 1936, requiring the railway to operate a thrice-weekly mixed train service from December 1 every year until April 30 in the next year.

SPAIN

New Lines Proposed

The Railway Department has ordered the Northern and the Madrid Zaragoza & Alicante Railway Companies to appoint a joint commission to study the location and construction of a broad-gauge line between Reus and Tarragona. Reus is on the main line between Barcelona and Madrid and the proposed chord line would give Tarragona direct communication with the capital, either by means of through carriages or by

trains between Barcelona and Madrid being run *via* Tarragona.

The project is being revived in Bilbao for a direct line to Burgos, passing through Arrigorriaga, Areta, and Trespaderne. Such a line would shorten the distance, of 194 km. or 121 miles, between the two cities by the present route—partly over the Northern Company's main line—but the country to be traversed is mountainous and would offer considerable natural difficulties.

NEW SOUTH WALES

Eight Months' Operating Results

For the first eight months of the year, to the end of February, the New South Wales Railways had had a particularly favourable year. Working expenses and earnings as compared with the previous year were as under :—

	Working Expenses	Earnings
Eight months—	£	£
Ended Feb. 28, 1939...	9,362,044	12,592,736
Ended Feb. 29, 1940...	9,241,272	13,948,703
Decrease	120,772	Increase 1,355,967

Unfortunately on March 11 last the coal miners throughout the Commonwealth ceased work, and, as a result, railway revenues have since slumped considerably.

Curtailment of Services Due to Coal Strike

In order to conserve supplies of coal for the maintenance of essential services, the Railway Department has been compelled, since early in April, to curtail services. Both metropolitan and country passenger services have been affected to a marked degree, mainly during the non-peak hours in the suburban areas and in respect of week-end steam services to country destinations.

From April 7 sleeping berth accommodation was withdrawn from all trains with the exception of the Interstate expresses, and the reservation of seats was restricted to certain specified trains.

Also, from April 14 and 15, the daily limited expresses each way between Sydney and Albury were discontinued, and service is given every day by the ordinary express trains, on which booking of seats is compulsory.

On the Queensland side, service by the Brisbane limited express between Sydney and South Brisbane and *vice versa* has been given daily, up to the moment, but sleeping berth accommodation has been eliminated. Connection with Queensland trains *via* Wallangarra is given on only four days a week, also without sleeping accommodation.

With the continuance of the coal strike further drastic curtailment may be inevitable.

Excursions Discontinued and Goods Traffic Restricted

In order to restrict travel, the issue of special excursion tickets at single fare for the return journey on Fridays, Saturdays, and Sundays has been discontinued, except for travel wholly within the metropolitan area or wholly within the Newcastle suburban area.

These restrictions apply chiefly in respect of travel to tourist points.

In regard to goods traffic, restrictions were placed on the haulage by rail of a considerable number of commodities as from April 4, and this has resulted in goods train services being curtailed extensively.

The effect of these reduced services to date has been shown by reductions of approximately £100,000 a week in earnings. At the moment of writing there is speculation as to whether the Government may attempt to work the mines with free labour.

CEYLON

New Rolling Stock Costs Up

The Government will have to face an extra bill of over Rs. 1 lakh on rolling stock ordered before the war. When the order was placed it had been expected that delivery of this new stock would be taken on a bill not exceeding Rs. 200,000. Due to the war, however, it is now found that the cost will amount to Rs. 300,585.

Training Engine Drivers

Proposals for reorganising the scheme of training drivers are at present being considered. It is suggested that the course of training should be extended to seven years, so as to improve the efficiency of the locally-trained men by giving them a wider experience.

The recruitment of locomotive drivers from abroad for service on the Government Railway has been stopped entirely, and there are at present very few non-Ceylonese drivers on the railway. The existing scheme of training apprentice - drivers was specially designed to expedite the process of Ceylonising the service, and so a five-year course of training was introduced.

Young men are recruited as special apprentice-drivers and, at the end of the five-year period of training on engines on various sections of the railway, they are examined and, if suitable, appointed shunting drivers. Before promotion to the drivers' grade they are further examined and, if found efficient, are appointed locomotive drivers in charge of engines on the regular runs.

At a conference of railway officers it was urged that a longer and more comprehensive course of training should be introduced. It is, therefore, proposed that the whole of the first year is to be spent in the running shed, and in the second year six months are to be spent in studying the repairs to locomotives. For about three years more, the apprentice must work as a fireman on the various types of engine and on various links. It is only in the last year of training that he will work independently as driver on a shunting engine.

Transportation Probationers

A scheme for training Ceylonese railway probationary transportation officers on the Indian railways is being considered at present, as the training of these officers on the British railways

has been interrupted owing to the war. The details of the scheme have not been finally worked out and certain proposals are to be submitted to the Indian Railway Board, with whom the arrangements for the training have primarily to be made. The railways in India to which the probationers are to be attached have also to be specified by the board. There is already a scheme in operation for the training of Ceylonese railway probationary mechanical engineers on the Indian railways, but this is the first time that it has been proposed to send probationary transportation officers to India.

There are certain difficulties, however, with regard to the proposed change. The probationary transportation officers have, at the end of their course of training, to qualify as Members of the Institute of Transport in England and, therefore, arrangements will have to be made for the institute to recognise the training in India. According to the original scheme, the probationary transportation officers had to proceed to England for about three years' training on the British railways after completing their training in Ceylon. Two of these officers were in England when the war broke out, so that their training was interrupted and they had to return to Ceylon.

As the existing scheme is not likely to be resumed till the war is over, it is thought that steps should be taken without further delay to arrange for the training of these officers on recognised Indian railways.

EIRE

G.S.R. Summer Train Service

Owing to present conditions, the usual summer service will not be introduced on the Great Southern Railways this year, and the only important alteration in the present service is that the 12 noon train from Cork to Kingsbridge, on Sundays only, will be altered to leave Cork at 4 p.m. This will give an opportunity for day trip passengers by the 10.30 a.m. train from Dublin to visit intermediate stations and return at a reasonable hour. It will also be more suitable to week-end passengers, and should be an encouragement to this form of traffic.

Proposed Aerial Ropeway at Bray

The promotion of an undertaking to construct an aerial ropeway to the summit of Bray Head is reported to be proceeding satisfactorily. The Harbour & Esplanade Committee of the Bray Urban Council has granted permission to the promoters to erect two standards on, and grant wayleave through, the council's land on the headland, subject to the receipt of adequate payments to be fixed later. In the first instance it is proposed to run the line to Eagle's Nest and subsequently extend it to the summit of the head. The station would be on land adjoining the council's property.

ECONOMIC CONTROL OF MATERIAL

Some notes on the more economical use of materials and the elimination of waste

(From a correspondent)

IN present circumstances every ounce of material unnecessarily abandoned as scrap is a charge on the nation's productive capacity, involving the cost of transport, fuel, electric current, manual labour, wear and tear of furnaces, machines, equipment, etc., and the sum of these items must be weighed in the balance when finally deciding the question of whether or not material is of further use in its present state. It is realised that much has been and is being done in the direction of material economy, and it is with a view to emphasising the possibilities which still lie ahead that the subject is here brought forward. A review of statistics relating to the vast quantity of raw materials entering British ports week in and week out, involving as it does valuable shipping, transportation, unloading, and reloading, encourages an investigation to see how this enormous tonnage can be reduced, if even by a moderate percentage.

The enormous quantities of materials employed in the manufacture and repair of transport vehicles of all kinds, railway and road, is almost staggering, but a general consideration of the economical use of one class of material may be useful to illustrate how better service of these materials in general can be obtained by a pre-ordained method of control.

Shortly before the outbreak of war the Government instituted the Ministry of Supply* in order effectively to control the supply and distribution of raw and finished material to all users in accordance with their needs, having regard to questions of national importance. The Ministry also covers the salvage of scrap material. It is left as the responsibility of manufacturers to make the best use of the materials at their disposal, and to be quite sure that so-called scrap is really beyond any further use.

The materials required for the manufacture and maintenance of transport vehicles may be placed under the broad headings of metals and timbers, but as the "flowability" of metal renders it far more adaptable to conversion from one form to another this class of material may be taken to illustrate a scheme of economic control. Broadly, material is used or replaced through:—

1. Manufacture of new vehicles.
2. Repairs to existing vehicles, involving replacement or repair of parts.
3. Manufacture of spare parts for stock.

The main reasons for the replacement of parts or material arise from wear and tear, fractures or breakages, and alteration of design. Wear and tear can be reduced by the use of suitable wear-resisting materials and the localising of wear as far as possible; the life of such material or parts can be extended to the utmost by a system of wear limits judiciously applied. Fractures and breakages from time to time are inevitable, but are again affected by the design, class of material, and workmanship; it will be shown later that fractured parts can be usefully repaired or made use of. The question of alteration of design calls for no particular comment except that without improvement there would be no progress.

Use of Raw Materials and Re-use of Worn Parts

Raw materials vary from pig iron to rolled sections or plates, and when planning the manufacture of any type of article every consideration must be given to the methods

and processes used so as to limit waste of material as far as possible. For example, in a forging the exact weight allowance for heat losses and the correct section should be predetermined so that there should be a minimum of trimming to go to scrap. If the forging is to be machined on any of its surfaces, the lowest margin consistent with a well-finished article should be allowed.

In the case of a cast article, whether ferrous or non-ferrous, all losses through melting or other causes should be controlled carefully, for, although waste metal can be remelted, there is the waste of those items which come under the heading of melting costs. The machining allowance, as in the case of forgings, is a very important matter, as also is the proper control of the weight of rough castings, the latter especially so, as excess metal remains idle capital in all items which are overweight. A few ounces overweight on a mass-produced casting will mount up to an incredible total.

The methods of making use of worn or broken parts are legion and a few instances will, it is hoped, indicate broadly the principles on which complete utilisation can be systemised. For example, rods or shafts which are worn below safe limits can be rolled or forged down to make articles requiring smaller sections, or, where design permits, the worn surfaces can be built up by autogenous welding or metal spraying. Small odd plates can be used for fabricating built-up structures. The punchings from large washers can be made into small washers, bar ends too short for production machines can be forged into pins, or made into odd sized bolts where only centre lathes are available. Bolts on which the thread has corroded or stripped can be cut short and rescrewed.

Suggested Analysis

The foregoing are only a few examples of ways and means of using material to the best advantage, and it will be realised that there are very many other ways and methods which can be adopted. For an organisation to have effective control over the economic use of material there should be at the outset a complete analysis in the following order:—

1. To review existing designs for the purpose of dispensing with excess or unnecessary weight of material.
2. To determine the correct weight ratio between rough and finished articles, making only such finishing allowances as are essential and consistent with modern methods.
3. To fix forging and casting limits in such a manner as to ensure that Item 2 is carried out.
4. To have periodical inspection of rough castings and forgings and cause adjustments to be made where there is any diversion from standard weights.
5. To analyse the causes which give rise to recurring renewals.
6. To institute salvage depots for the receipt of re-usable material.
7. To sort and record all material received at the salvage depots and to determine the purpose for which such material can be used having regard to size, condition, grade, etc.
8. To circularise those responsible for placing orders, so that full benefit may be obtained of all such re-usable material before new is called for.

The all-important result to obtain is the avoidance of systems which will produce anything more than the bare minimum of residue. By the limitation in the first place of excess material and the persistent combing out of this excess until what is left may be truly named "scrap," we shall be performing a service to the nation and helping to shorten the period of the war.

* See THE RAILWAY GAZETTE of March 15, 1940, page 365

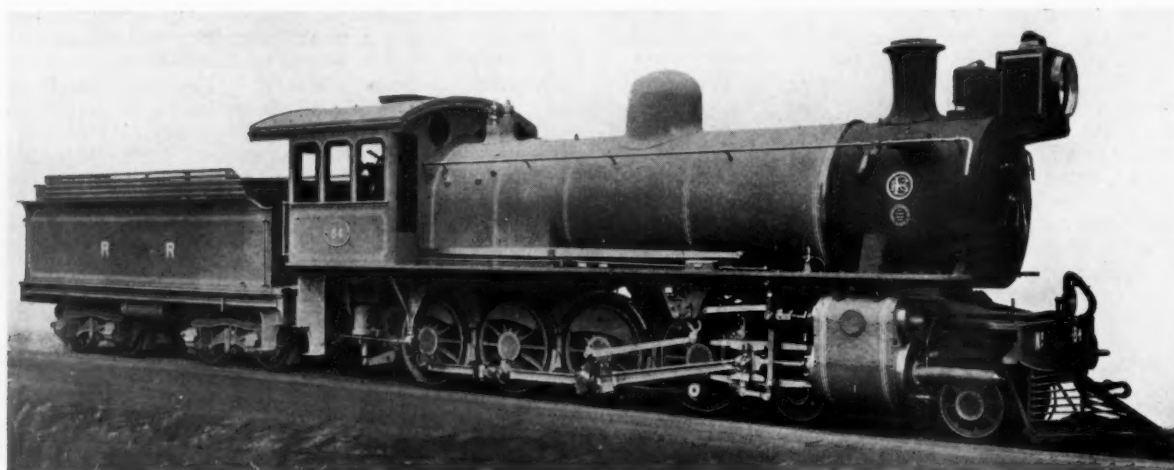
AN INTERESTING LOCOMOTIVE REBOILERING PROGRAMME

The efficiency of 4-8-0 type engines on the Rhodesia Railways has been considerably increased by a scheme of partial conversion

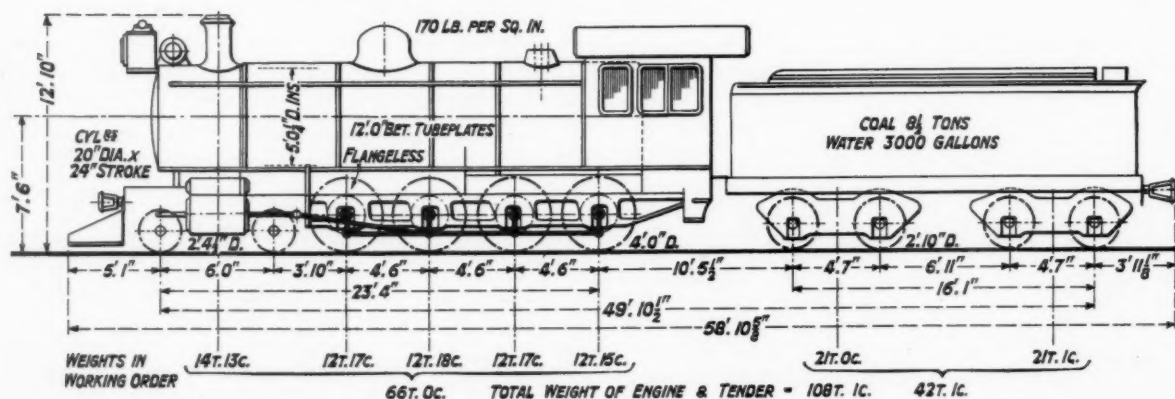
AN interesting reboiling and partial conversion programme is being carried out by the Rhodesia Railways Limited at Bulawayo, Southern Rhodesia, on a number of a series of 30 locomotives of the 4-8-0 tender type which were placed in service between 1912 and 1917. The original boilers were pitched with the centre line 7 ft. 6 in. above rail level and, being low pitched, had shallow flat grates at a level practically corresponding to that of the lowest row of tubes. To prevent live coal entering the tubes at the bottom of the barrel, an ash hopper was provided immediately below the tube plate to the rear of which was a vertical brick wall supporting the front of the brick arch. Trouble arose through the brick arch collapsing and in addition the circulation in the front water leg was unsatisfactory. The ash pan was wide and very shallow and the area for ingress of air inadequate.

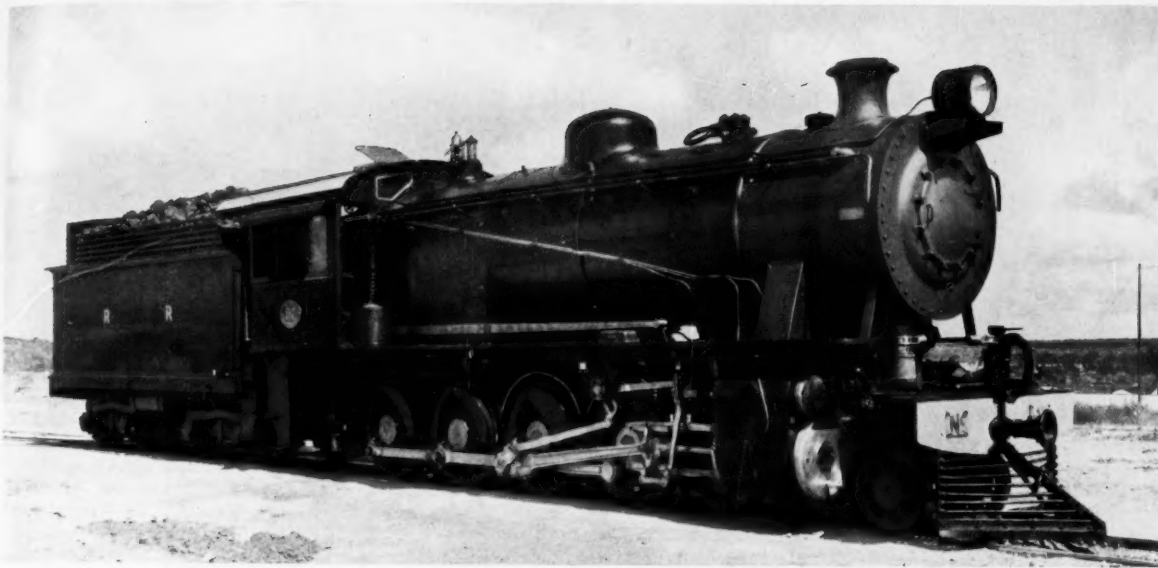
Tests made with the first of the reboilered engines show that the increase in load with a goods train at goods train speed was 8 per cent., while with a mixed train at mixed train speeds the increase in load was 14 per cent., the

additional heating surface and steam pressure providing the extra steam necessary to work the augmented load without difficulty. The steamchest pressure, due to the larger steam pipes, was only 5 lb. per sq. in. below that of the boiler, the pressure drop in the original engine being about 20 lb. per sq. in. The efficiency of the new boilers is reflected by the evaporation of water per lb. of coal burnt, which is 7.35 lb. with the new boilers as against 6.5 lb. with the original ones. The three arch tubes provided in the new boilers have helped to improve evaporation. The engines were built some by Beyer, Peacock & Co. Ltd. of Manchester and others by the North British Locomotive Co. Ltd. of Glasgow. A cast-steel distance piece was fitted between the existing saddle casting and the new smokebox, to make up for the difference in height of the centre line of the respective boilers. The fireboxes in the new boilers are of copper, provided with Flannery type steel flexible stays in the front and back top corners, and with steel stays for the remainder of the water space stays. A Gresham & Craven combined feed-water heater and

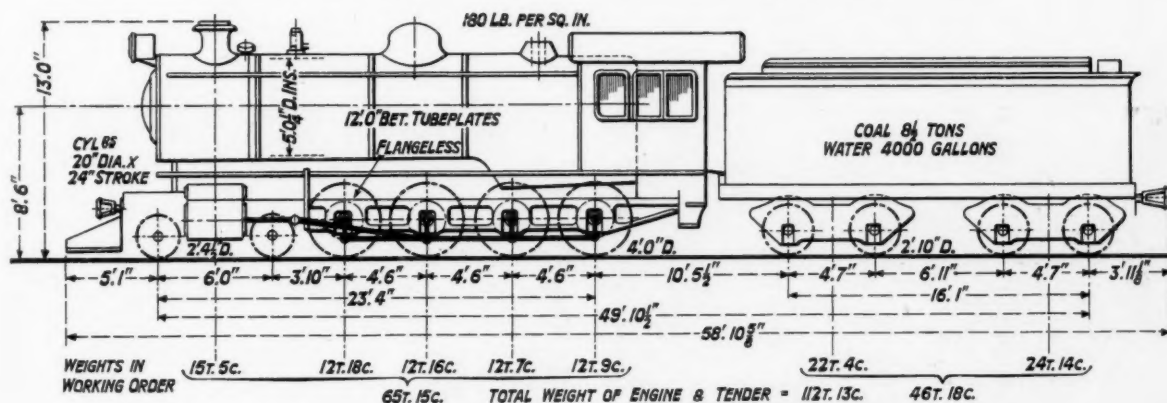


4-8-0 locomotive as originally supplied to the Rhodesia Railways





Locomotive as fitted with new and larger boiler and higher capacity tender



Overall dimensions and weight distribution of engine after conversion

clackbox is fitted to each boiler. The superheater damper plates operated by a steam cylinder have been dispensed with in the new boilers, and the usual air valve placed on the top of the smokebox, connected with the superheater header on the saturated side.

There is a slight reduction in coal consumption with the reboilered engines, as compared with the original type, of 4 lb. per mile over the same road with increased loads of 10 per cent. The redrafting of the smokebox on the lines recommended by the American Railway Association has tended towards improved combustion. The introduction of the arch tubes has permitted a longer brick arch, and has effected a marked reduction in the amount of ash deposited in the smokebox.

As the tenders of this class of locomotive required extensive repairs, the opportunity was taken to increase the water capacity from 3,000 to 4,000 gallons. The accompanying photographic reproduction and drawings for which together with the foregoing particulars we are indebted to Major M. P. Sells, Chief Mechanical Engineer, Rhodesia Railways, show the characteristics of the original and reboilered locomotives. The new boilers already fitted have been supplied by Beyer, Peacock & Co. Ltd.

The following comparative figures show the difference between the original and the new boilers:—

	Original boilers	New boilers
Working pressure, lb. per sq. in. ...	170	180
Number of small tubes ...	123	133
Diameter of small tubes outside ...	2 in.	1½ in.
Number of large tubes ...	21	24
Diameter of large-tubes outside ...	5½ in.	5½ in.
Heating Surface in sq. ft.		
Small tubes ...	772.6	783.4
Large tubes ...	346.2	395.7
Firebox ...	123.7	147.8
Arch tubes ...	—	19.1
Total ...	1,242.5	1,346.0
Increase in evaporative heating surface 8 per cent. ...	—	—
Superheater area, sq. ft. ...	338	408.6
Grate area, sq. ft. ...	31	36.4
Diameter main-steam pipe ...	5 in.	6½ in.
Diameter smokebox steam pipes ...	4½ in.	6 in.

Other dimensions of these engines are:—

	Original	Reboilered
Cylinder dia. and stroke ...	20 in. × 24 in.	20 in. × 24 in.
Driving wheels diameter ...	4 ft.	4 ft.
Boiler pressure, lb. per sq. in. ...	160	180
Boiler centre above rail level ...	7 ft. 6 in.	8 ft. 6 in.
Length between tube plates ...	12 ft.	12 ft.
Traction effort at 75 per cent. boiler pressure, lb. ...	25,500	27,000

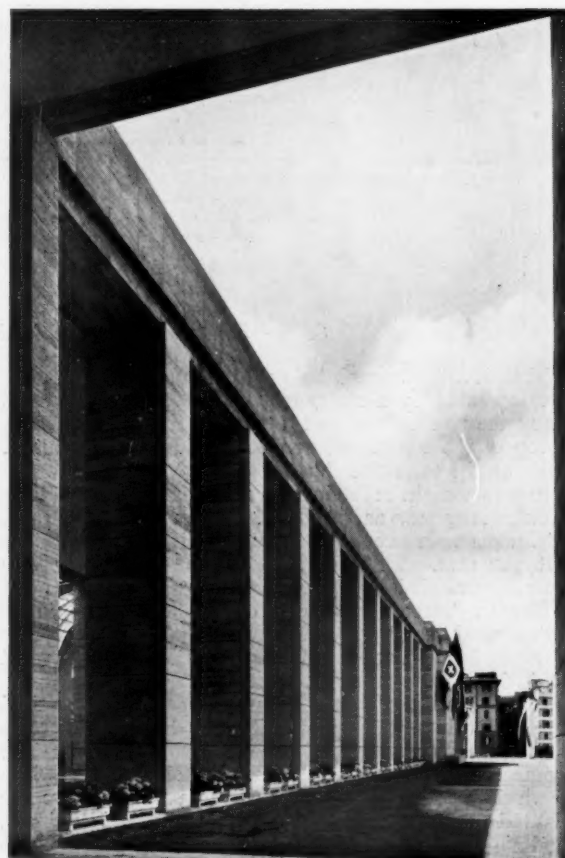
The "Axis" Station in Rome

Rome-Ostiense: The special station built for Hitler's visit to Rome in the spring of 1938

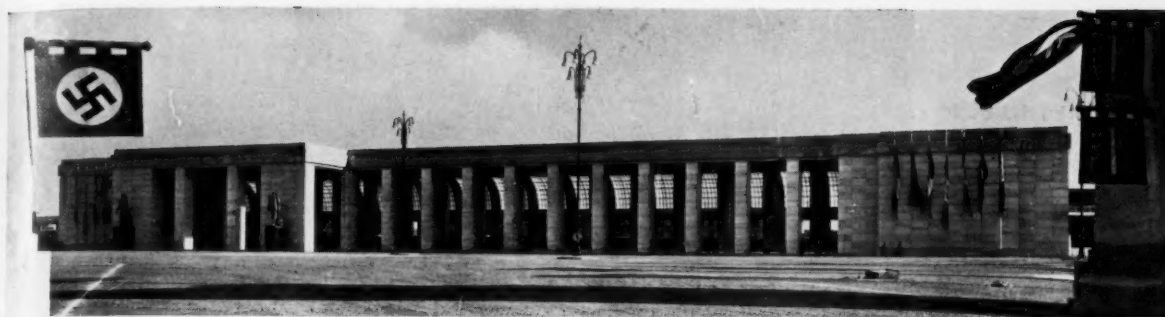
(See page 18)



Night view of the station from the railway, showing the curved glazed portion between the platform roofing, the hall of honour, and the main entrance thereto from the platform



Left: Gallery between the platform and the hall of honour; and (right) the opposite side of the hall of honour from the main portico



Above : General view of exterior from the road approach

Right : Another view from the road approach, showing two of the decorated pylons and neon-type lighting standard, and the statues flanking the main portico



Left : Interior of the hall of honour. Note the neon-type lighting on the ceiling

Railways and the War—26

Right : Bombs falling on the railway yard at Hamm during a recent raid by the R.A.F. on important objectives in Germany. Hamm forms the eastern bottle-neck for traffic to the Ruhr. The main marshalling yard is mechanised and has a peak capacity of nearly 6,000 trucks a day. It was opened in October, 1925, and the similar mechanised yard of Duisburg Hochfeld Süd, at the western end of the Ruhr, in March 1928. Both are equipped with Frölich hydraulic rail-brakes



The weed-killing train introduced by the Southern Railway in 1937 (see our issue of July 23, 1937, page 152) which has been adapted as a fire-fighting train, as recorded at page 18

T
Kin
tive
trial
coun
S. F
Wal
Sir
Mr.
Mr.
Net
the
Com

S
been
pub
Bar
Cou
Dire
Rail
Rail

N
vac
aris
bee
by
has
law
to
men
ber

M
Ma
M
Ha
por
M
No
M
Op
M
Ge
L.N
M
Sec
M
Ma
M
En
Tra
Ju
com

M
Pa
L.L

M
En
has
me
In
ina
Ju
En

RAILWAY NEWS SECTION

PERSONAL

The Chancellor of the Exchequer, Sir Kingsley Wood, has created a Consultative Council of eight prominent industrialists, bankers, and economists. The council consists of the following: Mr. S. R. Beale, Mr. Colin F. Campbell, Sir Walter Citrine, Mr. H. D. Henderson, Sir Bertram Hornsby, Mr. J. M. Keynes, Mr. George Riddle, and Lord Riverdale. Mr. Beale is Chairman of Guest, Keen & Nettlefolds Limited and a Director of the London Midland & Scottish Railway Company.

Sir Charles Coupar Barrie, who has been created a baron for political and public services, has taken the title of Baron Abertay of Tullybelton in the County of Perth. Sir Charles Barrie is a Director of the London & North Eastern Railway and of the Central Argentine Railway.

INSTITUTE OF TRANSPORT

No nominations to fill any of the vacancies on the council, which will arise on September 30, 1940, having been received from corporate members by the prescribed date, the President has declared, in pursuance of the bye-laws of the institute, the ten undernamed to have been duly elected as ordinary members of the council as from October 1, 1940:—

Members

Mr. A. L. Castleman, District Goods Manager (London), L.M.S.R.

Mr. G. F. Craven, General Manager, Halifax Corporation Passenger Transport.

Mr. B. England, General Manager, Nottingham City Transport.

Mr. S. H. Fisher, Assistant Chief Operating Manager, L.M.S.R.

Mr. C. M. Jenkin Jones, Divisional General Manager (North-Eastern Area), L.N.E.R.

Mr. R. Leslie, London Manager & Secretary, Central Argentine Railway.

Mr. R. M. T. Richards, Traffic Manager, Southern Railway.

Mr. V. A. M. Robertson, M.C., Engineer-in-Chief, London Passenger Transport Board.

Mr. J. H. P. Turner, O.B.E., haulage contractor.

Associate Member

Mr. M. A. Cameron, Assistant to Passenger Manager (Southern Area), L.N.E.R.

Mr. Robert Lewis McIlmoyle, Chief Engineer's office, L.M.S.R., Watford, has been transferred from associate membership to full membership of the Institution of Civil Engineers (not, as inadvertently stated in our issue of June 14, the Institution of Locomotive Engineers).

Mr. Hubert C. R. Calver, who has been Stationmaster at Liverpool Street, L.N.E.R., for the past ten years, is retiring on July 31. Mr. Calver is an East Anglian by birth and was educated at Ridenhall Grammar School, near Harleston. He began his railway career, on the old Great Eastern Railway, as a junior clerk in Stowmarket goods office in 1894, and



Mr. Hubert C. R. Calver

Stationmaster, Liverpool Street, L.N.E.R.
1930-1940

held clerkships at various places in East Anglia, including Halesworth, Sudbury, Thurston, and Saxmundham, until 1907 when he was placed on the Ipswich Relief staff. During the period he was attached to the Ipswich Relief staff he acted as Stationmaster at 94 stations in East Anglia and became a familiar figure to many business people living in the area. In 1917 he was made Assistant Stationmaster at Liverpool Street. For a period he served on the Superintendent's head-quarter staff and in 1926 was appointed Stationmaster at Northallerton. In 1928 he became Stationmaster at Norwich (Thorpe), and in July, 1930, returned to Liverpool Street as Stationmaster. In the course of his career at Liverpool Street, Mr. Calver has received many foreign royalties and notable personalities and holds the Belgian decoration of Chevalier of the Order of King Leopold, conferred on him in 1937. Mr. Calver's busy life has not deterred him from social work, and he is a Life Governor of two hospitals, and a member of the Board of Management of the United Kingdom Railway Officers' & Servants' Association.

Mr. P. A. Foley, who, as announced in our issue of June 21, has been appointed District Superintendent, Great Northern Railway (Ireland), Amiens Street, joined the company's service as Junior Clerk in the office of the Superintendent of the Line, Amiens Street, over 35 years ago, where he gained experience in the various sections of the Coaching, Commercial, and Operating Departments. As assistant in Operating Department during the war of 1914-1919, he was engaged chiefly in the movement of troops and war materials. As a result of the re-organisation of the Traffic Department in October, 1926, Mr. Foley was appointed Chief Clerk in the newly-established office of District Superintendent at Dublin, and in 1932 he was closely associated with the successful transport arrangements in connection with the Eucharistic Congress held in Dublin. He was appointed Goods Agent, Dublin, in January, 1933, and when only a month in office had to deal with one of the worst railway strikes which took place in Dublin. The strike lasted for ten weeks and the subsequent reconstruction period was a severe test for the patience and endurance of any railway official.

Lord Farrer, whose death we recorded in our issue of April 19, has left estate valued at £60,828. Lord Farrer was from 1896 to 1911 a Director of the Midland Railway; a Director of the Underground Electric Railways Co. of London Limited from 1902 to 1933; Deputy Chairman of the London Electric Railway Company from its formation in 1910 until its dissolution after the formation of the L.P.T.B. in 1933; and Chairman of the Cordoba Central Railway Co. Ltd. from 1910 until after the purchase of the line by the Argentine Government in May, 1939, when Lord Farrer became Chairman of the Cordoba Central Trust (the holding company). He was also for many years a Director of the Entre Rios Railways Co. Ltd.

Mr. William Harris Victory, Assistant to the Chief Docks Manager, Great Western Railway, at Cardiff, has been appointed Chairman of the Newport Harbour Commissioners. Mr. Victory was born in Newport, Mon., and entered the service of the Alexandra (Newport & South Wales) Docks & Railway Company, in the General Manager's office in April, 1901. He became Secretary to the General Manager in 1912, and in the next year was selected for special training in dock and railway work. In 1915 he was made Chief Clerk, Coal, Shipping, and Traffic Office, and in 1918 was transferred to the General Manager's office, where he was placed in charge of a section. In 1922 when the railway was absorbed into the Great Western Rail-

way, Mr. Victory was appointed Principal Clerk to the Commercial Section in the new Chief Docks Manager's Department inaugurated by the G.W.R. Soon afterwards he acted as Secretary to the Joint Committee set up between the company and the traders in regard to delays in coal shipments. In July, 1926, he was appointed Chief Clerk, Chief Docks Manager's office, and in August, 1938, became Assistant to Chief



Mr. W. H. Victory

Assistant to Chief Docks Manager, Cardiff, G.W.R., who has been appointed Chairman, Newport Harbour Commissioners

Docks Manager. Mr. Victory has represented the G.W.R. on the Newport Harbour Commission for some years.

Mahmud Pasha Ghaleb has been appointed Minister of Communications in the new Egyptian Cabinet.

Among those appointments made by the Bordeaux Government of France is that of M. Berthelot, Assistant General Manager of the French National Railways, to be a member of the newly-formed Franco-German Armistice Commission to sit at Wiesbaden.

Forthcoming Meetings

- July 5 (Fri.)—**British Electric Traction Co. Ltd.** (Ordinary general), Winchester House, Old Broad Street, E.C., at 11.30 a.m.
 July 15 (Mon.)—**Bombay, Baroda & Central India Railway Company** (General), "Guilford," Epsom Road, Guildford, at noon.
 July 18 (Thurs.)—**Madras Railway Annuitants** (Statutory), 162, Finsbury Pavement House, Moorgate, E.C.2, at 2.45 p.m.

Forthcoming Events

- July 6 (Sat.)—Permanent Way Institution, at Central Hall, London, S.W.1, 3.15 p.m. Annual summer general meeting.

Railway and Other Reports

Rohilkund & Kumaon Railway Co. Ltd.—The 4 per cent. debenture stock transfer books will be closed from July 17 to 31 for the purpose of preparing interest warrants.

Egyptian Delta Light Railways Limited.—Notice is given to the holders of 3½ per cent. debentures of the Compagnie des Chemins de Fer Economiques de l'Est Egyptien that the board of the Egyptian Delta Light Railways Limited has decided in view of the difficulties caused by the war to withhold the payment of Coupon No. 86 due on July 1, 1940.

Great Southern of Spain Railway Co. Ltd.—The report for 1939 records that the civil war in Spain ended early in that year, but that no complete accounts are available. No reply has been received from the Spanish Government to the communications of the company with regard to the means of placing the railway in a condition to resume normal working, which would involve considerable expenditure impossible to meet without the assistance of the Government. The future of the company depends entirely on a recognition of its just claims and an equitable settlement. Including first mortgage debenture interest accrued but payment postponed, and taking into account only London revenue and expenditure, the loss on the year is £11,482 and the debit balance forward, as far as is ascertainable, is increased to £169,665. The debenture moratorium scheme is to be extended to December 31, 1941.

Kendall & Gent (1920) Limited.—The directors recommend an interim dividend of 5 per cent. (same).

Powell Duffryn Steam Coal Co. Ltd.—The directors recommend a final ordinary dividend of 5½ per cent., making 7½ per cent. of the year to March 31, 1940. For the previous year the total dividend was 6 per cent.

W. & T. Avery Limited.—The directors report a net profit for the year to March 31, 1939, of £151,098 as compared with £165,348. The final dividend of 10 per cent. makes the total distribution for the year up to the customary level of 15 per cent.

Keith Blackman Limited.—Net profit to March 31, 1940, was £32,771 against £32,528. The preference dividend takes £8,250 (£7,931) and the ordinary dividend is again 15 per cent. (£23,437). The carry forward is £30,483 which compares with £29,400 brought in.

Stephenson Clarke & Associated Companies Limited.—Net profits after provision for tax, for the year to March 31, 1940, were £227,891 which compares with £220,585 for the previous twelve months. The directors recommend a final ordinary dividend of 4 per cent., making 7½ per cent. for the year (against 10 per cent.). After placing

£100,000 to special emergency reserve (against £50,000 to general reserve), £89,063 is carried forward compared with £83,422 brought in.

Staff and Labour Matters

Railway Electrical Staff

The staff employed in railway electrical generating stations and substations and on the high-tension cables between them received an increase of 2s. a week as from July 1 under the cost of living sliding scale arrangements. This brings the total bonus paid to this section of staff since the outbreak of war up to 8s. a week. Arising out of Industrial Court Award No. 1,752, in which the Court indicated that consideration should be given to some adjustment of the rates of pay of switchboard and sub-station attendants and assistant switchboard and sub-station attendants, it has been agreed that, as from March 5, 1940, the rates of pay of the men in these grades shall be increased by 2s. 6d. a week.

Electrical Contracting Industry

The cost of living war addition to the wages of workpeople employed in the electrical contracting industry is to be increased to 10s. 5d. a week as from the second pay day in July and will remain in operation up to and including the first pay day in October, 1940.

N.U.R. Annual Conference

The annual conference of the National Union of Railwaymen opened at Morecambe on Monday, July 1, and Mr. J. H. Potts in his presidential address said that, if this is a war to safeguard democracy, we must at all costs preserve it here, at home. Dealing with railway wages, Mr. Potts said, one of the main features of the negotiations, apart from the success secured—successes which meant total increases of £11,000,000 a year—had been the temporary suspension of the sliding scale arrangements. This has been received with approbation on one hand, and condemnation on the other. Even in peacetime the method of compiling the cost of living figure was long out of date. "Personally," he added, "I hope we have seen the last of a formula that determined wages on a fodder basis."

Labour Supply in Shipyards

Machinery to deal with labour supply problems in the ship-building and ship-repairing industry has been set up by the Ministry of Labour. A central committee consisting of representatives of the Ministry, the employers, and the unions, will handle the subject nationally. There are to be similar area committees, and experienced men are being appointed to act as National Service officers in each of the shipyard districts. This machinery will ensure the swift concentration of labour in any yard that needs it, and, where necessary, the prompt transfer of labour from one district to another.

TRANSPORT SERVICES AND THE WAR—45

The new London road fares—More Defence Areas—The railways of Roumania and Hungary—Railway development work suspended

The financial arrangements between the Government and the four amalgamated railway companies and the London Passenger Transport Board, provide that rates, fares, and charges will be adjusted promptly to meet variations in working costs and certain other conditions arising from the war. For the 19 months from the beginning of the war until the end of next March, increased working costs of £22 million have been proved, towards which the 10 per cent. increase in railway charges which came into force on May 1 is estimated to yield £16½ million by the end of March next, and £18 million in a full year. The road fares of the London Passenger Transport Board were not increased at that date because those for short stages were difficult to adjust, and the Minister of Transport accordingly asked the Charges (Railway Control) Consultative Committee, consisting of the three permanent members of the Railway Rates Tribunal, to suggest the best means of obtaining a corresponding increase from the board's road services and also for its views as to any consequential adjustments which might be necessary in the fares on the board's railways. In effect, the committee was asked to make recommendations to produce an additional revenue of about £2 million per annum, and it held a public inquiry attended by representatives of the Railway Executive Committee, the London and Middlesex County Councils, local authorities, representative bodies of passengers, and individual passengers. The Consultative Committee considered many schemes and eventually issued recommendations based on practical considerations, such as the great difficulty in collecting large numbers of fares on road transport vehicles for stages shorter than those at present obtaining. Accordingly, it reported in favour of increasing fares for short journeys on London buses, trams, and trolleybuses, by raising the minimum from 1d. to 1½d. and adding ½d. to existing 1½d. fares and to four-stage 2d. fares. These increases, which (with one exception) came into force on Wednesday last, July 3, under Order of the Minister of Transport, are as follow:—

Road Transport	Estimate of Additional Revenue
(a) Ordinary Single Fares—	
1d. fares to 1½d.	£1,315,000
1½d. fares to 2d.	46,000
2d. fares (for three stages) to remain at 2d.	495,000
2d. fares (for four stages) to 2½d.	68,000
(b) Workmen's Fares—	
Minimum fare of 2d. to 2½d.	68,000
(c) Coaches	
Return fares (of 1s. 3d. and upwards) increased by 10 per cent. Fractions of 3d. if less than 1½d. not charged, if 1½d. or over charged 3d.	31,000
Return fares of less than 1s. 3d. increased by 10 per cent. Fractions of 1d. if less than ½d. not charged, if ½d. or over charged as 1d.	
Single fares up to 1s. 2d. increased by 1d. and exceeding 1s. 2d. increased by 10 per cent. Fractions of a penny if less than ½d. not charged, and if ½d. or over charged 1d.	13,000
Season ticket rates increased by 10 per cent., subject to the fractions rule	3,000
(d) Miscellaneous Fares—	
Any miscellaneous fare now based on an ordinary single fare to be increased where the fare on which it is based is increased, except that bus season tickets and the road portion of road-rail season tickets will be increased by 10 per cent., subject to fractions rule (c)*	10,000
Total estimated additional road transport revenue	£1,981,000
Rail Transport	
1d. fares to 1½d.	44,500
1½d. fares to 2d.	
2d. fares (for distances corresponding to the distances for which the 2d. road fare is to be increased) to 2½d.	45,000
	£2,070,500

* The fractions rule (c), which is in paragraph 3 of the Minister of Transport's Order of April 17 (S.R. & O., 1940, No. 586) is as follows: "In determining the amount of the additional charge, fractions of 1s. to be charged as 1s. in the rates for 12-month tickets; in the rates for tickets for shorter periods fractions of 3d. to be charged as 3d. (except in the case of weekly season tickets)."

Due to the difficulties of preparing new fare boards and tickets, the increase of 2d. fares to 2½d., and the introduction of general three-stage 2d. fares, will not take place before the beginning of September.

It will be noticed that increases have also been made on coach fares (on approximately the same basis as the main-line

railway fares), and on the small railway fares on the London Transport railways which correspond with road transport fares that have been raised. It is stated that the latter increases are to avoid diversion of traffic from the roads to the board's railways which would be detrimental to the operation of the rail services and would tend to defeat the object of securing increased revenue from the road services.

New East Coast Defence Area

The Minister of Home Security announced on June 28 that he had made an Order declaring the strip of country along the coast from the Wash to Berwick-on-Tweed, and extending 20 miles inland, to be a Defence Area. With the making of this Order, the Regional Commissioners concerned have power to control movement into this area or any part of it. In the exercise of this power, they have given directions that persons proceeding to any point in the area that is within 5 miles of the coast line, must produce satisfactory evidence that they are engaged on business, or for similar good reasons, otherwise they will be required to leave. This will apply to all holiday-makers and persons engaged on any kind of pleasure trip.

It is strongly emphasised both in regard to the 5-mile strip in the new Defence Area to which access is restricted, and in regard to the area included in the recent Defence Order extending from the Wash to Hastings in Sussex, that no permits are or will be issued for entry into these areas, and no enquiries regarding journeys should be made to police or other authorities. Intending travellers must ask themselves whether their journey is necessary or not, bearing in mind that the Orders are not intended to interfere with legitimate business activities or journeys undertaken for other good reasons.

It will be noticed that, in the case of the recently declared Defence Area extending from the Wash to Hastings, and 20 miles from the coast, the control of movement extends to the whole area. In the case of the area now declared, i.e., from the Wash northwards to Berwick and 20 miles in depth, the control of movement is limited for the present to the 5-mile strip along the coast.

The Channel Islands

The Home Office announced on June 28 that, in view of the German occupation of the parts of France nearest to the Channel Islands, it had been decided to demilitarise the islands, and that all armed forces and equipment had already been withdrawn. A large portion of the civilian population was evacuated voluntarily some days earlier, mainly during the period June 20-23. German landings were made in Guernsey on June 30, and in Jersey on July 1. The Postmaster-General announced on July 1 that all communications with the Channel Islands had been suspended.

Travellers in Northern Ireland

Full details are now available of the Order which has been made by the Minister of Home Affairs for Northern Ireland, to which we referred briefly at page 903 last week. This Order prescribes the documents of identity, one or more of which from July 1 must be in the possession of any person of 14 years of age and upwards, and must be produced on demand to any police constable in uniform; failure to do so renders the offender liable to a fine or imprisonment. The approved documents are as follow:—

(a) An identity card issued pursuant to the provisions of the National Registration Act, 1939.

(b) A valid passport.

(c) A travel permit card issued by the United Kingdom or Eire authorities.

(d) A document of identity issued by a head or other constable of the Royal Ulster Constabulary in charge of a station.

Persons normally resident in the United Kingdom will already be in possession of identity cards under (a). Persons visiting Northern Ireland who are normally resident in places

outside the United Kingdom should take steps to provide themselves with one of the alternative documents indicated at (b), (c), and (d). Documents of identity under (d) will be issued by the Royal Ulster Constabulary only to persons who are known to them. Persons wishing to obtain such documents should make application at the R.U.C. station where they are known. Documents of identity under (d) will not be issued to persons in respect of whom identity cards under the National Registration Act, 1939, have been issued.

Old Wrapping Paper

Difficulties are arising from the use of wrapping papers from which old addresses have not been removed. The main-line railways wish to draw attention to the desirability of despatchers of parcels removing or obliterating all old addresses from papers used as wrappings.

Returned Empties by Rail

The British railways are desirous of making all possible provision for the transport of returned empties in view of the shortage of packing materials. The re-use of packages formerly non-returnable has caused a great increase in the volume of the returned-empty traffic. It will greatly assist traders to obtain the maximum use of the packages, and will obviate difficulties at goods stations arising from accumulations of empties awaiting delivery, if firms will accept delivery of returned empties throughout the day from Monday to Friday, and also on Saturday mornings.

L.M.S.R. Salvage Success

Successful results have already been obtained from a salvage flying squad, composed of specially-adapted railway vans, which is touring 100 L.M.S.R. stations in the London area to collect wartime salvage. One of these was illustrated at page 888 of our June 21 issue. So far the L.M.S.R. has collected in London by this and other means nearly 100 tons of salvage, including scrap metal, waste paper, old rope, straw, and timber, found mostly in small quantities at goods and passenger stations. Three L.M.S.R. salvage-collecting vans are at present operating in the London area, on circuits ranging from three to six days each; the vans are taken from one station to another by ordinary trains, so that the expense of collection is negligible. All the scrap and waste material collected in these vans is taken to a central depot in North London, where it is sorted and afterwards disposed of to the best advantage.

In order to encourage L.M.S.R. railwaymen to salvage tins and other waste material from staff messrooms, the

company is offering to present dartboards to the three messrooms which produce the greatest amount of salvage in four weeks, proportionate to the number of staff involved. This competition is a result of the effort of Foreman D. Wright of Birmingham (Vauxhall), who in eight weeks personally collected 500 tons and placed them at the disposal of the L.M.S.R. salvage authorities.

Demolition of Bennie Railplane for Scrap

For the past ten years the experimental installation at Milngavie of the George Bennie railplane system of transport has formed a landmark in the north-west outskirts of Glasgow. It is now to be demolished, however, in order to assist the scrap metal campaign, to which it will contribute about 100 tons of scrap. The rigid overhead structure, from which the cars are suspended, was erected in 1929 on a site chosen with the co-operation of the L.N.E.R., and this experimental installation was inspected by members of the Institute of Transport during the Glasgow Congress of 1930. It was illustrated and briefly described in *THE RAILWAY GAZETTE* of July 11, 1930, pages 64 and 71. More recently Mr. George Bennie has been advocating the adoption of his system as a means of solving the problem of providing speedy transport between the centres of large towns and their airports. A film showing the building and equipment of the Bennie railplane car and the construction and erection of the rigid overhead structure was shown to members of the engineering press and others in July, 1937 (see *THE RAILWAY GAZETTE* of July 30, 1937, page 212).

Weed-killing Train for Fire Fighting

The weed-killing train of the Southern Railway has been converted into a mobile fire-fighting unit, staffed by a squad of six trained men. This train, which was placed in service in 1937, consists normally of one goods brake van; three tenders containing enough chemical concentrate for 128 miles; three tenders containing enough water for 40 miles; and one six-wheel equipment van. It was illustrated and described in *THE RAILWAY GAZETTE* of July 23, 1937, pages 152-5. The train will be used within a prescribed area to deal with fires on or adjacent to the Southern Railway Company's premises to which access cannot be gained by outside fire-fighting units or where delay might occur in such units reaching the fire. As a fire fighter, the capacity of the train is 18,000 gal., which is sufficient to serve for 2½ hours continuously, using two nozzles. When not engaged in fire fighting, the train will continue to carry on its normal work of weed-killing.

The Hitler Station in Rome

Italy's recent declaration of war on Great Britain and France, which thus resulted in her becoming the full military partner of Germany, gives topical interest to the special station at Rome at which Hitler was received by Mussolini at the time of the State visit of the former to Italy in the spring of 1938. At that time this station was described as having been built specially for Hitler's reception, in the rapid time of about 40 days, to the designs of Signor R. Narducci, Architect to the Italian State Railways. It was then called a temporary station, but it would appear that subsequently it was completed for the accommodation of ordinary traffic and the current timetable of the Italian State Railways shows some 20 trains a day stopping there. This station, which is called Rome-Ostiense, lies on the main line to Pisa, between the Termini and Trastevere stations in Rome. As will be seen from some of the illustrations reproduced on pages 12 and 13, it is obviously designed to meet the requirements of special traffic. It was the scene of an exhibition of rolling stock at the Italian railway centenary celebrations from which the British delegation returned only a few days before the Italians entered into the war (see *THE RAILWAY GAZETTE* of June 7, page 809), and is in close proximity to the site of the proposed International Exhibition which was in preparation for 1941.

The station building is 155 m. (509 ft.) long and 18 m. (59 ft.) wide; its principal portion is a so-called gallery or hall of honour, through which visitors pass from the train to their road vehicles, or the reverse. On the platform side of the hall there is a longitudinal passage way, covered by a



Some of the Lancashire & Yorkshire "war service" badges of the 1914-19 war collected in the Bolton district for scrap (see our June 7 issue, page 813)

semi-circular glazed archway, from which springs the umbrella roofing over the platform. This roofing extends for a total length of 300 m. (328 yd.) and is double sided beyond the main building.

The hall of honour, which is 15 m. (49 ft.) high, is lighted partly from the glazed roofing of the passage way, but is liberally provided with neon tubular lamps in addition. Near the entrance from the platform is a waiting room, with telephone and other facilities. At the exit to the roadway is accommodation for the station staff. Simplicity of design was achieved, and decorations were limited to a few allegorical or heraldic statues and paintings.

The framework of the building is steel, chiefly of tubular form, and rests on light concrete foundations; the main columns are formed of 16 tubes disposed in a rectangle, and the roof framing in simple girder form, covered with bituminised mill-boarding. Welding was used for the framing for the umbrella roofing and the glazed semi-circular roofing over the side passage way. Angle and T irons were used for the pillars in this case. The framings were covered over with light material, and imitation travertine (which resembles marble) used for the main building and hall of honour, with stucco inside on certain parts.

The single platform is of asphalt and the flooring in the interior of the building is in various forms of mosaic work. About 500 men were employed, and the work, which cost 4 million lire, was carried out by private contractors under the direction of the Way & Works (Rome) Department of the Italian State Railways. (See illustrations pp. 12-13.)

Transport in France

In view of the difficulties of communication between various parts of France during recent weeks, and also between France and the outside world, comprehensive information is lacking about the condition of railway and other transport. As a matter of historical record, however, we are appending such information as has now come to hand.

The last through train from France arrived in Istanbul on June 13.

Two trains, transporting the Italian Ambassador and Italian consuls in France and their staffs, arrived at Geneva on June 16, and the passengers, 500 in number, left later for Italy. On the same afternoon the French Ambassador in Rome and his staff arrived at Geneva and continued their journey to France.

In the later stages of French resistance to the German advance many French refugees, both civilian and military, passed into western Switzerland; the soldiers were, of course, interned. A message from Zurich dated June 18 said that a French military hospital train with wounded had arrived in Switzerland.

On June 17 it was reported that public supplies in Paris,

such as water, gas, and electricity, were being maintained, and that a regular train service was working on the Metro; this position was confirmed on July 1.

On June 18 the British Postmaster General announced the temporary suspension of mail, parcel post, and money order services to France, Switzerland, and other countries which require transit through these territories.

Railways in Holland

The Netherlands Railways, which are of course in German occupation, issued official public timetables which came into force on June 10, covering the very restricted services that are now available on some of the lines. It has been announced that supplementary timetables are to be issued as and when further sections of line are again brought into use, and up to June 22 six such supplementary tables had been issued. The electrified lines in the western provinces were steam-operated up to June 10, when electric traction was re-introduced on some lines. On June 17 the Rotterdam-Dordrecht section, which had suffered worse damage than the others, was again used by electric trains, thus completing the normal electric operation of the whole of the western system. No electric services are yet being operated on the central system, which has suffered very considerably as the result of the destruction of bridges. Previous reference to the railway situation in Holland since the German invasion was made at page 844 of our June 14 issue.

Luxembourg

Luxembourg, one of the smaller German States up to 1867, was, by the Treaty of London of that year, declared a neutral state under William III of Orange Nassau, King of Holland, who became also Grand Duke of Luxembourg. The State remained, as it had been, within the German customs union. The railways of Luxembourg, constructed under two schemes, are the Guillaume-Luxembourg and the Prince Henri, named after the reigning Grand Duke and the Heir to the Throne. The G.-L. undertaking includes the principal through lines from Belgium through Lorraine and Alsace to Switzerland, and into Germany; the Prince Henri owns the Luxembourg section of the Luxembourg-Paris route and a system of local lines. After the Franco-Prussian war, ending in 1871, the railways in Alsace and Lorraine provinces, ceded by France, were taken from the French Est and constituted a German Imperial administration, and the main G.-L. lines were brought under the German directorate. The Prince Henri lines continued under their independent management.

Prince Henri died before the Grand Duke, King William, and, as at the death of the Grand Duke in 1890 no direct male descendant survived, the Throne passed to the House of Nassau. The German influence in Luxembourg then increased rapidly, the customs service was manned by Germans, and the railway system was completely Germanised. Large German head-offices were built in Luxembourg, and all the railway staff was German with very few exceptions. New stations were erected in pure Teutonic style, and an example is the new Luxembourg central station, which at the outbreak of the war of 1914 had not been completed. During the reign of the Grand Duke of Nassau, who had no sons, the succession law was altered, and at his death he was succeeded by his eldest daughter, the sister of the present Grand Duchess.

The country was occupied by Germans throughout the 1914-1919 war, but the Treaty of Versailles of 1919 cut all German ties. Luxembourg entered into a customs union with Belgium in May, 1922, and appointed its own customs officials. The former German-operated G.-L. railway together with the Alsace and Lorraine lines, were handed to the Alsace-Lorraine administration of the French State Railways to operate after the armistice of November, 1918, under a provisional arrangement. Under the customs convention, Belgium should have shared in the working of both the Luxembourg railway systems. After long negotiations, a convention between the Luxembourg and the Belgian Governments was signed at Brussels on May 13, 1924, under the terms of which the entire railway system of Luxembourg was to have been administered by the Prince Henri Railway under the control of the Grand Ducal Government, but in



The building at Compiègne erected in 1927 at the expense of Mr. A. H. Fleming, a wealthy Californian, to house the famous armistice carriage

association with the Belgian Government so far as questions of interest to Belgium were concerned (particularly regarding transit traffic). This convention was rejected in January, 1925, by the Luxembourg chamber of deputies, and the G.-L. lines remained under French control, although negotiations with Belgium continued.

Reliable information is lacking as to whether the French National Railways, into which the Alsace-Lorraine Railways and indeed all the French State Railways, had been merged in 1938, continued to be responsible for the management of the Luxembourg lines after the outbreak of the present war. In the early days of hostilities, traffic across the frontiers of both Germany and France was severely restricted. Through international trains were, of course, withdrawn, but daily communication between Brussels and Luxembourg Town was maintained by one fast train each way, and a number of semi-fast trains taking $3\frac{1}{2}$ to $4\frac{1}{2}$ hours. For a time it seems that all ordinary traffic between Luxembourg and France was suspended. On November 27 the France-Luxembourg frontier was reopened, with the limitation that travellers were required to cross by train or motorcar and not by cycle nor on foot. Visas became obligatory. In April last there were local trains across the Luxembourg-German frontier, providing two services each way daily between Luxembourg Town and Trier (see our April 19 issue, page 586).

At the beginning of March it was announced that precautions against a possible invasion of its territory had been taken by the Grand Duchy of Luxembourg by the installation at all the frontier roads and bridges of steel doors, filled with concrete, and weighing about 20 tons each. Nevertheless, Germany invaded Luxembourg on May 10 and occupied the country without resistance. Since then the Grand Duchy has been in German occupation.

Lithuanian Transit Traffic

Some further details have just become available concerning the arrangements between Lithuania and the U.S.S.R. for direct and transit communication between Lithuania and Russia. An agreement was signed at Moscow on January 27 providing for direct goods and passenger traffic between the two countries, and, according to this agreement, direct railway communication was to be effected through three points, namely, Kena, Stasylai, and Marcinkonys. Communication

through Kena began in February, through Stasylai on April 1, and through Marcinkonys on May 1. In addition to this direct communication, agreement has also been reached at Moscow on transit traffic from Lithuania through the Soviet Union to Odessa; on Soviet transit to Germany through Lithuania; and on Lithuanian transit through the Soviet Union to Roumania. A supplementary agreement on transit matters to Odessa and Roumania was signed at Moscow on April 10, and agreements on passenger traffic from Lithuania to Moscow and from Germany to Moscow were also improved. The Lithuanian Engineer, Augustas, who was in charge of the Lithuanian railway delegation engaged in negotiating at Moscow on these transit arrangements, returned to Kaunas on April 13. All these arrangements, of course, preceded the Russian military occupation of Lithuania on June 16. It may be added that a special wartime commercial treaty between Germany and Lithuania was concluded on April 17, 1940, one of the provisions of which is that the German Government has undertaken to afford all practicable facilities under wartime conditions for Lithuanian trade with neutral countries. Germany has also undertaken to supply Lithuania with coal by rail and sea.

Roumania

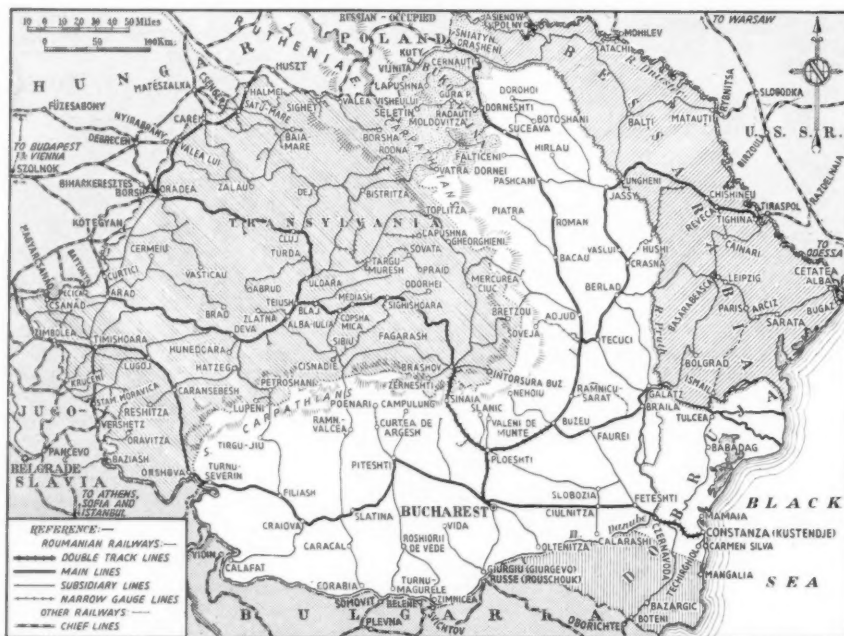
Last week Russia presented a 24-hour ultimatum to Roumania expiring at 10 p.m. on June 27, in which she demanded the satisfaction of her claims regarding Bessarabia and Northern Bukovina. The Roumanian Government replied with a request that negotiations might be begun. This was refused, but there was a postponement of a few hours which resulted in Roumania accepting the Soviet demands and agreeing to the Russian military occupation of the territories concerned, beginning at 2 p.m. on June 28. According to a Moscow radio announcement, the Roumanian Government was made responsible for handing over intact all railways and rolling stock, bridges, airports, power stations, telegraphs, and telephones. It would appear that the Russian occupation was unopposed, but it was officially announced in Bucharest that some clashes had occurred in Bessarabia between Russian and Roumanian troops, due to the fact that the Russian advance was faster than that agreed in the schedule, and overtook the rearguard of the retiring Roumanian forces. On July 1 it was reported that two trains of Roumanian wounded had reached Bucharest.

Many Roumanians have left Bessarabia by rail for the Old Kingdom, while Jews are moving to Bessarabia to establish themselves under the Soviet Government. The names Paris and Leipzig will be noticed on our map in Southern Bessarabia. These are prosperous towns established in the eighties by French and German colonists. It is understood that most of the inhabitants of these communities who are of French and German descent have moved into the Old Kingdom.

The new Roumanian-Soviet frontier in Bukovina probably lies roughly along the River Suceava, a tributary of the Siret (which joins the Danube at Galatz). Thus the branch line which runs westward to Seletin from Dorneshti on the main line to Cernauti, will be partly in Roumanian and partly in U.S.S.R. territory. The town of Radauti and the main-line junction of Dorneshti will presumably be in Roumania, but the loop north of the river to Gura Putnei will be in the Northern Bukovina.

Hungarian Railways

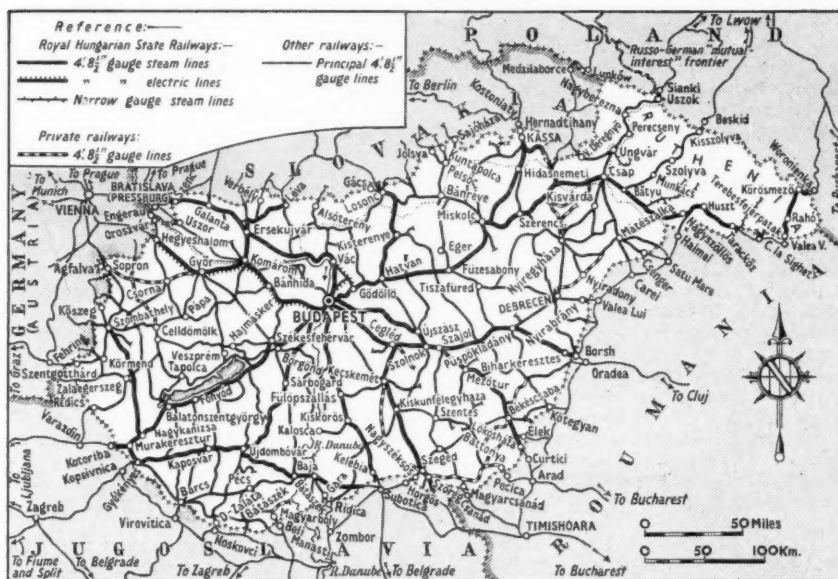
Another country that is often in the news as being indirectly concerned with, or threatened by, the war is Hungary. As a result of



The railways of Roumania showing (untinted) the Old Kingdom, and (with various forms of hatching) the territories acquired in the wars of 1912-19

the changes shortly after the Munich agreement, the disintegration of Czecho-Slovakia, and the absorption by Hungary of Ruthenia and a slice of Slovakia, her northern frontier has undergone considerable realignment and her railway system has been materially extended. In fact, the Vienna award of November 2, 1938, increased the route-length of the Royal Hungarian State Railways by some 1,504 km. or by nearly 20 per cent. The additional length is made up of 987 km. of main line and 374 km. of branch lines, all 4 ft. 8½ in. gauge, and of 143 km. of 2 ft. 6 in. gauge line, the only sections of narrow gauge in the country. In the year 1918 the Royal Hungarian State Railways were working 19,153 km., of which 11,893 km. (62 per cent.) were lost as a result of the Treaty of Trianon, leaving a remnant of 7,260 km., which was increased by 559 km. (to 7,818 km.) when the State began working the Southern Railway on July 1, 1932.

The pre-1918 State Railway system was laid out to centre upon Budapest and included the Sub-Carpathian lines. After that date the railway traffic of Ruthenia was diverted to the capital of Czecho-Slovakia at Prague, which was far-distant and could not be reached easily from that area, due to the physical difficulties of crossing five watersheds, and because the railway system had been designed otherwise. The



The railways of Hungary as enlarged by territorial acquisitions in 1938-9

garia, Yugoslavia, Roumania, and Hungary, met in Rome at noon on that day for a conference on various transport and transit traffic problems arising from the present European situation. Signor Giannini, the leader of the Italian delegation, was elected chairman of the conference, and the leader of the German delegation, Professor Mortius, vice-chairman.

Summer Time

In Italy summer time was introduced on the night of June 13-14, when clocks were advanced one hour. Italian time thus now coincides with German Summer Time, and is one hour in advance of British Summer Time. It will be recalled that Italy entered the war on June 10.

Turkey introduced summer time on July 1, making an advance of one hour in the official time.

In Argentina summer time was introduced on July 1 in order to effect economy in the use of fuel.

Canadian Railways and the War

Work is proceeding expeditiously with the conversion of the repair shops of the Canadian National Railways at St. Malo, Quebec, into an extension of the Government Arsenal at Quebec, in accordance with arrangements made by the Dominion Government. The first units to be transferred are the blacksmith shop and the car shop, to be followed immediately by the locomotive shop. Repair work normally done at the St. Malo shops will be shifted to company shops in Montreal and at Riviere du Loup, Quebec. The employees who, under the terms of the wage agreements, follow the work they have been engaged on and proceed to Pointe St. Charles, Montreal, or to Riviere du Loup, are being transferred to the seniority list at the shop which they enter. Some of the employees now at St. Malo shops may be required to work at the Quebec Arsenal, in which case they will be granted leave of absence from the railway, and these men will have their seniority rights preserved pending their return to railway service. Present indications are that there will be few men, and those of junior standing in the railway, for whom work will not be available immediately. Some earlier details of the arrangements were given at page 874 of our June 21 issue.

Canada is much better equipped today to transport a large volume of freight than it was during the last war, and the railways can handle double the freight they could carry in 1914-19. Locomotives are heavier and more powerful than they were a quarter of a century ago, having tractive efforts today up to 90,000 lb. as compared to 52,000 lb. then. Rails on the main lines are 20 to 50 lb. heavier and freight



Panel of a Polish State Railways carriage now in the hands of the Reichsbahn

re-acquired lines have now returned to their former functions of serving the Hungarian plain and Budapest, and there is no question of the traffic of the country having to be hauled over watersheds either towards Prague or into Poland. The accompanying map shows the pre- and post-November, 1938, frontiers and the lines that have now returned to Hungarian ownership.

The returns for the Royal Hungarian State Railways for the year ended June 30, 1939, show the total length of line open as 9,309 km., of which 9,168 km. are standard gauge and 141 km. are 2 ft. 6 in. gauge. The slight differences between these figures and those given above are presumably to be explained by the closure of short sections of line near the new frontiers. The rolling stock is returned at 1,949 steam locomotives, 33 electric locomotives, 2 petrol locomotives, 164 diesel-engined railcars, 11 electric railcars, 15 railbuses, 10 newspaper railcars, 3,880 passenger carriages, 1,101 guards' and luggage vans, and 46,137 freight wagons.

Transport Congress in Rome

A Rome report of June 29 to the Official German News Agency stated that delegations from Italy, Germany, Bul-

cars have an increase in capacity from 33 to 42 tons. Freight train speeds have been nearly doubled since 1914. The transport of vast quantities of foodstuffs, war supplies, and of large numbers of troops to the Atlantic seaboard to await conveying to Great Britain is proof of the predominant rôle which the great Canadian railway systems will play during the war.

Dominion Railway Construction Companies

The arrival of Australian troops in London is a reminder that Australia also has formed Railway Construction and Survey Companies for overseas service. Actually there are already four Australian Railway Construction Companies. On June 21 we published the announcement of the Canadian Minister of Defence that four Railway Construction Companies were being recruited in Canada. In January last (see THE RAILWAY GAZETTE of January 19, page 100) the New Zealand Government announced the formation, for service overseas, of a Railway Survey, Construction, and Maintenance Force, to be officered by engineers from the Public Works Department of New Zealand, and to consist of 16 officers and 371 other ranks, including non-commissioned officers. The New Zealand unit began training early in February.

War Emergency in New York

At the 13th annual meeting of the New York State Society of Professional Engineers, held in New York on May 24 and 25, the classification of members on the basis of emergency service in the national defence was approved as an immediate objective. This course had already been facilitated by a questionnaire recently sent to all members. The tasks that would fall to engineers in the event of war were discussed at the luncheon meeting of the society by Rear Admiral Ralph Whitman, head of the Civil Engineer Corps of the Navy in the New York district. Admiral Whitman said that, if America became involved in war, the engineer's training and experience would prove of great value in qualifying him to render useful service.

Troop Accommodation at London Termini

In the House of Commons, on June 26, considerable prominence was directed to the welfare arrangements for soldiers at London railway termini. Speakers in the debate, which was opened by Mr. D. Robertson (Streatham—C.), declared that the arrangements were inadequate and dealt specifically with Euston, King's Cross, St. Pancras, and Liverpool Street stations. The discussion is reported at page 26. On the next day the Railway Executive Committee made the following announcement: "The railways are much concerned at the criticisms which have been directed against them regarding the provision of accommodation for troop canteens and rest rooms at railway stations. Since the commencement of the war they have been making every endeavour to meet the requests of the War Office and the recognised welfare organisations for such accommodation, and many requests have been met. Railway stations are, however, limited in size; as travellers well know, most of them are very crowded, and it is essential to keep large areas free for dealing with abnormal wartime requirements. Under these conditions it has been difficult, with the best will in the world, to meet all the requests which the railways have received. Measures designed to improve existing conditions have been submitted to the Railway Executive Committee, and these are receiving special consideration."

At Paddington it has not been possible to provide facilities for a separate canteen because of limitation of space and A.R.P. requirements, but arrangements have been made by the G.W.R. for troops passing through London to use the staff canteen on No. 1 platform, where good meals may be obtained at a reasonable cost. The arrangements are working satisfactorily and approximately 1,500 meals are being served daily. The Salvation Army has taken over a section of the St. Pancras Hotel at St. Pancras station and is fitting it up for rest and refreshment for 400 men; it is also extending the premises it has at King's Cross. At Euston work has been begun on the preparation of further accommodation for troops. Mr. Eden, Secretary of State for War, told the House of Commons on July 2 that the main-line termini in London had been inspected, and details of the additional

accommodation and facilities required were being worked out. He added that the object was to provide at every station a rest room, dining room, cooking facilities, information bureau, free washing room and lavatories, and free cloakroom on the same scale as existing at Victoria station.

Provincial Amenities for Troops

The secretary of the Y.M.C.A., Bradford, gave the *Yorkshire Observer* of June 28 a statement relating to the railway companies there. He accorded the highest praise to the railway companies for the excellent facilities which they had placed at the disposal of the troops. During the rush periods the railway hotels undertook to supply hot tea on the platforms, and one hotel manager placed all his spare crockery at the disposal of the Y.M.C.A. Bread was also loaned by the railway hotels when the Y.M.C.A. stocks were depleted.

Towards the end of June the Soroptimists Club of Manchester took delivery of a refreshment trolley from which, with permission from the Cheshire Lines Committee, travelling troops are being served at the Central station, Manchester. The stationmaster has placed a room at the disposal of the 84 club members and friends who are manning the trolley day and night in shifts.

At the beginning of June a rest room for the Forces was opened at Perth General station; Mr. D. W. Barrie, District Goods & Passenger Manager, L.M.S.R., performed the opening ceremony.

Development Work Suspended

In order to conserve steel for essential war purposes, the Ministry of Transport has decided that work on the extension of the Central London Line in both easterly and westerly directions shall be suspended. Work is to stop at once on the extension east to Loughton and Ongar, and west to Ruislip and Denham. Work has already ceased on the L.N.E.R. electrification to Shenfield. In effect, the decision now taken means the cessation of practically all work on the electrification plans for the improvement of the London Transport Area. The work of making safe uncompleted bridges and revetments is being put in hand immediately.

Air Services

The services of Jersey Airways Limited from Shoreham to Jersey and Guernsey were suspended on May 17, and reopened—from Heston, instead of Shoreham—on June 4; they were abandoned on June 15 at the beginning of the demilitarisation recorded at page 17 this week.

During the past six weeks national requirements have resulted in various temporary suspensions of internal air lines. The service of Great Western & Southern Air Lines Limited to the Scilly Isles was suspended on May 23, resumed on June 3, again suspended on June 15, and restored on June 22. The air lines based on Liverpool of West Coast Air Services Limited (to Dublin), Railway Air Services Limited (to Belfast and Glasgow), and Isle of Man Air Services Limited (to Ronaldsway), were suspended on May 17, resumed on May 20, again suspended on May 23, resumed on June 3, once more suspended on June 15, and restored on June 27. Scottish Airways Limited was also compelled to suspend activities from May 22 to June 3, and from June 15 to 27.

The air line between Roumania and Turkey of the Roumanian company L.A.R.E.S. was suspended on June 13, "due to the possibility of an intensification of the war in the Near East." It was reported that the service between Roumania and Greece (Athens) was being continued. Under Order from the Roumanian Air Ministry, nearly all internal air services in Roumania were suspended until further notice on June 27; the Soviet occupation of Bessarabia began the next day (see page 20).

The K.L.M. (Dutch) air lines in Europe were suspended with the German invasion of Holland on May 10. Plans to maintain a weekly service to Lisbon from Shoreham, in conjunction with the British Overseas Airways Corporation, were discussed, but were not found practicable. The K.L.M. service between Naples and Batavia was suspended on June 12. The K.N.I.L.M. services, based on Batavia, remain unaffected by the war, so far as is known.

NOTES AND NEWS

Renaming Bampton (Oxford) G.W.R. Station.—Bampton station of the G.W.R., in Oxfordshire, is being renamed Brize Norton & Bampton in order to avoid confusion with Bampton in Devonshire.

Agreed Charges.—Fifty-five applications for the approval of agreed charges under the provisions of Section 37 of the Road and Rail Traffic Act, 1933, have recently been lodged with the Railway Rates Tribunal. Notices of objection to any of these applications must be filed on or before July 16.

British Airway Companies.—The *London Gazette* for June 25 contains notices relating to the voluntary winding up of British Continental Airways Limited, Imperial Airways (Nigeria & Gold Coast) Limited, Imperial Airways (Repair Works) Limited, and Air Pilots Training Limited. In all cases the notices announce the final dates for sending in particulars of the claims of creditors.

Bath & District Light Railway.—At an extraordinary general meeting of the Bath & District Light Railway Co. Ltd. held at 10, Northgate Street, Bath, on June 24, Mr. Evelyn H. R. Trenon, the Chairman, presiding, a special resolution was passed "that the company be wound up voluntarily and that Arthur George Dennis, of 15, Curzon Street, Mayfair, in the County of London, Solicitor, be and he is hereby appointed liquidator for the purpose of such winding-up."

Guest, Keen & Nettlefolds Limited.—At the annual meeting held at the Queen's Hotel, Birmingham, on June 25, the Chairman, Mr. S. R. Beale, said that control, to a company such as theirs, could be particularly harassing, as the majority of the finishing departments for products such as bolts, nuts, rivets, screws, wire, nails, and many other articles, were dependent for raw material on supplies from the steel works and rolling mills of the company. At the same time, the group was a substantial supplier of steel in various forms to its many outside cus-

tomers, and reallocation of supplies as between the outside trade and the departments of the company could naturally cause disturbance in all departments of the group.

L.N.E.R. Canal Toll Rebates.—The L.N.E.R. announces that the estimate of de-rating relief accruing to it under Part V of the Local Government Act, 1929, in respect of its canal undertaking renders necessary a modification in the scale of rebates hitherto allowed. Notice is accordingly given by the company that as from August 1, 1940, the scale of canal rebates for all merchandise traffic will be 5 per cent. of the tolls.

Extension of Time for L.N.E.R. Works.—The L.N.E.R. is applying to the Minister of Transport for an Order under the Special Enactments (Extension of Time) Act, 1940, extending by three years the time now limited by Section 6 of the L.N.E.R. Act, 1935, for the completion of: (i) Railway No. 3 in Ipswich authorised by the L.N.E.R. (Works) Act, 1930 (Section 5); and (ii) Deviation Railways Nos. 1 and 2 in Wood Green authorised by the Great Northern Railway Act, 1914 (Section 5).

John Brown & Co. Ltd.—At the ordinary general meeting on June 28, the Chairman, Lord Aberconway, told shareholders that the company had purchased almost all the minority interest in the ordinary shares of Craven's Railway Carriage & Wagon Co. Ltd. He also said that during the past five years John Brown & Co. Ltd. had expended over £200,000 on the installation of modern machine tools and equipment, and a very greatly increased turnover at the shipyards had been made possible by such modernisation.

Keith Blackman Limited.—At the annual general meeting of Keith Blackman Limited on June 27, the Chairman, Mr. G. Keith, said that for the year ended March 31, 1940, output had been the highest in the existence of the company. The first five months of the financial year (before the war started) turnover had showed a steady increase compared with the previous year. In the remaining seven months, turnover rose rapidly, and this rise continued.

The number of orders in hand constituted a record. The great majority of these orders were related to war work. To cope with this extra business the company had been working on overtime for a long period, and it was now working seven days a week at high pressure to speed up production in accordance with the Government request. A night shift had also been in operation for some time.

British and Irish Railway Stocks and Shares

Stocks	Highest 1939	Lowest 1939	Prices	
			July 2, 1940	Rise Fall
G.W.R.				
Cons. Ord. ...	38	21½	27	+3½
5% Con. Pref. ...	92	71	61½	-2
5% Red. Pref. (1950) ...	98	83	92½	-5
4% Deb. ...	103	91	93½	+1
4½% Deb. ...	105½	93½	98½	—
4½% Deb. ...	110	99	100½	—
5% Deb. ...	121	109½	107½	-1
2½% Deb. ...	63½	54	58	—
5% Rt. Charge ...	117	104	99½	—
5% Cons. Guar. ...	111	96½	96½	+3
L.M.S.R.				
Ord. ...	17	9½	12	+2
4% Pref. (1923) ...	46½	20	27	+3
4% Pref. ...	63½	37½	41	+2½
5% Red. Pref. (1955) ...	83	58½	65½	-2
4% Deb. ...	98½	85	87	+3
5% Red. Deb. (1952) ...	109	101½	104	—
4% Guar. ...	87½	73	69½	+1
L.N.E.R.				
5% Pref. Ord. ...	5½	3½	2½	+½
Def. Ord. ...	3½	1½	1½	—
4% First Pref. ...	38½	19	26	-3
4% Second Pref. ...	15	7½	9½	+2
5% Red. Pref. (1955) ...	55	38	40	—
4% First Guar. ...	78½	60	60½	+1
4% Second Guar. ...	68½	47	42½	-1
3% Deb. ...	71½	57	58	+1
4% Deb. ...	93	76	78	—
5% Red. Deb. (1947) ...	106½	98	99	—
4½% Sinking Fund Red. Deb. ...	104½	96	98½	—
SOUTHERN				
Pref. Ord. ...	78	46½	38	—
Def. Ord. ...	19½	7	9	-1½
5% Pref. ...	100	76	61½	-2
5% Red. Pref. (1964) ...	102½	94	94½	-3
5% Guar. Pref. ...	116½	103	95½	+2
5% Red. Guar. Pref. (1957) ...	112½	102½	97½	-3
4% Deb. ...	103	91½	89½	+2
5% Deb. ...	118½	109½	106½	-2
4% Red. Deb. (1962- 67) ...	106	98	97½	—
4% Red. Deb. (1970- 80) ...	102	96	95½	—
FORTH BRIDGE				
4% Deb. ...	98½	81	87½	—
4% Guar. ...	95	80	82½	-3
L.P.T.B.				
4½% "A" ...	115	103	105	—
4½% "A" ...	123	106½	109	—
5% "T.F.A." ...	105	100½	102	—
5% "B" ...	117½	102	104½	—
"C" ...	84	63½	26	+1
MERSEY				
Ord. ...	24½	17½	20½	—
4% Perp. Deb. ...	93½	88½	91	—
3% Perp. Deb. ...	77	65½	60½	—
3% Perp. Pref. ...	55	49½	54½	—
IRELAND				
BELFAST & C.D.				
Ord. ...	6	3	4	—
G. NORTHERN				
Ord. ...	6	2½	4	—
G. SOUTHERN				
Ord. ...	13½	8	11	—
Pref. ...	26	10	22½	—
Guar. ...	40½	22	29½	—
Deb. ...	57	45½	52½	—

* ex dividend

Irish Traffic Returns

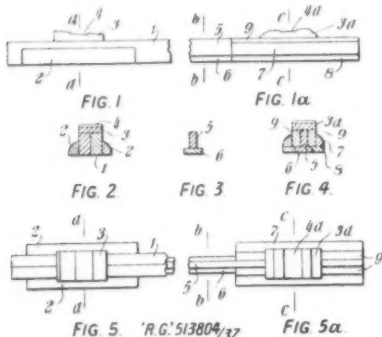
IRELAND	Totals for 25th Week			Totals to Date		
	1940	1939	Inc. or Dec.	1940	1939	Inc. or Dec.
	£	£	£	£	£	£
Belfast & C.D. (80 miles)	pass. 4,340 goods 615 total 4,955	3,158 449 3,607	+ + +	1,182 166 1,348	64,298 10,823 75,121	+ + +
Great Northern (543 miles)	pass. 12,500 goods 13,200 total 25,700	11,800 10,000 21,800	+ + +	700 3,200 3,900	262,150 296,350 558,500	+ + +
Great Southern (2,076 miles)	pass. 38,038 goods 44,024 total 82,062	40,094 36,828 76,922	- + +	2,056 7,196 9,252	795,425 1,105,340 1,900,765	+ + +
L.M.S.R. (N.C.C.) (271 miles)	pass. 8,490 goods 3,710 total 12,200	5,780 3,000 8,780	+ + +	2,710 710 3,420	119,250 88,120 207,370	+ + +
					92,450 73,480 165,930	+ + +
					26,800 14,640 41,440	

ABSTRACTS OF RECENT PATENTS*

No. 513,804. Sleepers

Wolfgang Bäseler, of 21, Walhallstrasse, Munich 38, Germany; Heinrich Zangl, of 14, Juttastrasse, Munich, Germany; and Jakob Dietrich, of 38, Camerloherstrasse, Munich-Laim, Germany. (Convention date: April 26, 1937.)

Fig. 1 is a partial side elevation, Fig. 2 is a section on line a-a, and Fig. 5 is a plan of a sleeper built up from sawn timber, including a main body 1 of two timbers cemented together and

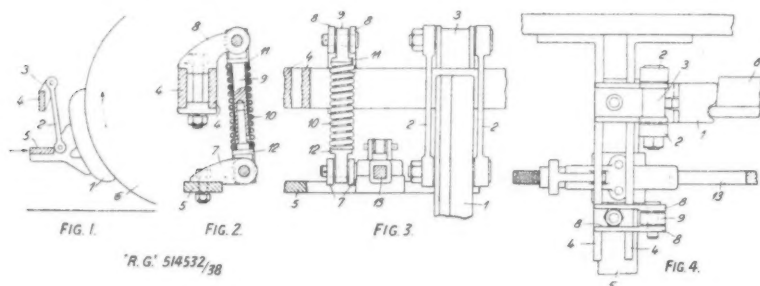


buttresses 2. Chairs 3 with recesses 4 are provided for seating the rails. Fig. 1a is a partial side elevation, Fig. 3 is a section on line b-b, Fig. 4 is a section on line c-c, and Fig. 5a is a plan of a similar sleeper, including timbers 5, 6 glued or cemented together and reinforced at rail seatings by flat members 8, 9, and quarter rounds 7. The actual rail seatings are formed by chairs 3a having recesses 4a. Other modifications are illustrated.—(Accepted October 23, 1939.)

No. 514,532. Brake Rigging

Alfred Walter Maley, of 4, Grosvenor Road, Handsworth, Birmingham, and Edmund Mackenzie Taunton, of 90, Fitz Roy Avenue, Harborne, Birmingham. (Application date: May 9, 1938.)

Each brake shoe 1 for each wheel 6



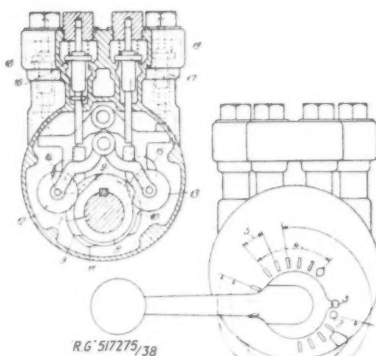
* These abridgments of recently published specifications are specially compiled for THE RAILWAY GAZETTE by permission of the Controller of His Majesty's Stationery Office. Group abridgments can be obtained from the Patent Office, 25, Southampton Buildings, London, W.C.2, either sheet by sheet as issued, on payment of a subscription of 5s. a group volume, or in bound volumes, price 2s. each, and the full specifications can be obtained from the same address price 1s. each.

is usually hung by a link 2 from a bracket 3 on the cross-bar 4 of the vehicle, and two brake shoes are frequently connected by a transverse beam 5. Figs. 2-4 show an application of the invention according to which all the play in the suspension linkage between frame and brake shoe is taken up by resilient means so stressed initially that no reversal of stress occurs on braking. A compression spring 10 is wound between shoulders 11, 12 on a telescopic link 9 connecting brackets 7, 8 attached to the brake beam 5 and cross-bar 4. The brake rod 13 is attached to the brake beam on the level of the beam pivots of the links 2. Provision may be made for adjusting initial stress in the spring 10.—(Accepted November 10, 1939.)

No. 517,275. Sanding Apparatus

Alfred Walter Maley, of 4, Grosvenor Road, Handsworth, Birmingham, and Edmund Mackenzie Taunton, of 90, Fitz Roy Avenue, Harborne, Birmingham. (Application date: June 21, 1938.)

Pneumatically actuated sanding apparatus is governed by the normal



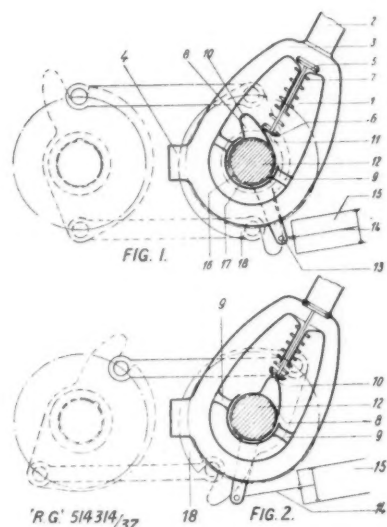
movement of the electric driving power controller handle to apply sand when the handle is moved to emergency brake

notches. Arc 1 indicates the extent of power notches, on the first of which, 2, the track brake is released, and 3 is the "off" switch. Arc 4 indicates the extent of notches on which the air track brake is applied, arc 5 indicates opening of the inlet valve of the gate-operating cylinders, and arc 6 indicates opening of the exhaust valve thereof. The upper end of the spindle 7 carries cams 8 to 11 which actuate valves 16 to 19 through rockers 12 to 15, cams 8 and 9 and rockers 12 and 13 operating the track brake and exhaust valves 16 and 17, and the other cams and rockers actuating the sander admission valve 18 and exhaust valves 19.—(Accepted January 25, 1940.)

No. 514,314. Automatic Couplings

Scharfenbergkupplung Aktiengesellschaft, of 6A, Lennéstrasse, Berlin, W.9, Germany. (Convention date: July 3, 1937.)

An automatic coupling of the rotating disc-hoop type is provided with a device for shutting off air from the brake pipe, consisting of a valve cock



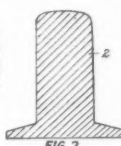
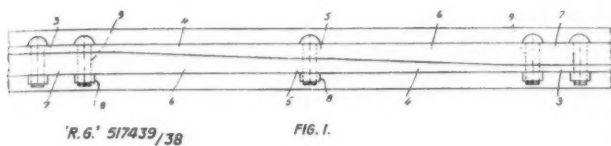
casing 1 which connects the inlet pipe 2 with the outflow pipe 4 through branches provided by an annular pipe 3, and a valve 5 pressed to the open position by a spring 7 acting on a plate 6 on the valve stem. The valve is closed by a cam lever 8 and cam 10, rotating in a cross-bar 9 and adapted to slide into a notch 11 in the plate 6 when the valve is pushed in, thus locking the valve in the closed position. The cam lever 8 is concentric with the main bolt 12 of the coupling, and the arm 13 projects into the path of the coupling releasing device consisting of a piston rod 14 in a compressed air cylinder 15. In addition the tappet 17 on the main bolt 12 engages a recess 16 in the cam lever. When passing from the coupled position (Fig. 1) to the uncoupled position (Fig. 2), the main bolt 12 rotates in

the clockwise direction. Only when intentional working of the cylinder 15, to advance piston rod 14, is performed does this rod engage the arm 13 to rotate the cam lever 8, in the same direction as the "heart" cam 18 and the main bolt 12 of the coupling, to close the valve 5.—(Accepted November 6, 1939.)

No. 517,439. Rails

Francesco Castagna, of 90, Via Milano, Brescia, Italy. (Convention dates: July 27, 1937, and June 1, 1938.)

The main part of a rail is shaped in the usual way but at each end the web is as wide as the head, as shown



in Fig. 2. These end portions are tapered as at 3, 4, 5, 6 and 7, so that each such portion may be spliced to the corresponding end portion of an adjacent rail, the overlapping portions of the rails being secured together by bolts 9 and nuts 8.—(Accepted January 30, 1940.)

No. 514,682. Reduction Gears for Turbine Locomotives

(Communication from Aktiebolaget Ljungströms-Angturbin, of Kungsgatan 32, Stockholm, Sweden.)

William John Tennant, of 111/112, Hatton Garden, London, E.C.1. (Application date: April 12, 1938.)

Between the locomotive frames 10, 11 is a two-stage reduction gearbox 12. The turbine 13 has a shaft 14 to which a hollow shaft 15 is connected.

By means of flexible couplings 16, 17 this effects transmission to high-speed gear pinions 18, 19, in one piece on a shaft 20 mounted in bearings 21, 22. The first reduction gear consists of two gear wheels 23, 24 secured to a hollow shaft 25, carrying pinions 26, 27 of the second reduction gear. These pinions 26, 27 are in a single ring 28 and mesh with two gears 29, 30 on a common rim which consists of coaxial rings 31, 32 and helical springs 33 which permit of slight relative movement between the rings. The drive to the driving axle 34 is effected by links 35, 36, pivoted to the rim portion 32, which are linked to a floating member 37, encircling the axle 34 and pivotally connected to links 38, 39, pivoted to a

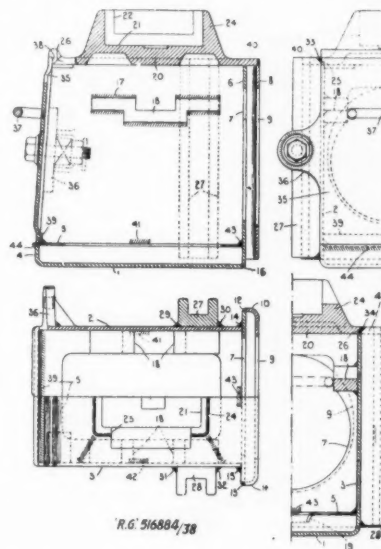
disc-like member 40 on the driving axle.—(Accepted November 15, 1939.)

No. 516,884. Axleboxes

The London & North Eastern Railway Company, of Marylebone Station, London, N.W., and Thomas Hepple Wheatley Cruddas, of 11, Westbourne Grove, Abbey Road, Darlington, Durham. (Application date: July 12, 1938.)

A fabricated axlebox consists of a box proper, including a single metal sheet forming the bottom 1 and side walls 2 and 3, closed at its upper end by a cap 20 welded to the box at 25 and 26, with channel members 27, 28, for the guide horns, welded to the sides of the box at 29, 30, 31 and 32 and to the top at 33 and 34. A dust shield-plate 6, perforated at 7 to pass

the axle, is welded at 12, 13 to the turned over side edges 10 and 11 of a back plate 8 perforated at 9, and both plates are welded to the box proper at 14, 15 and 16. For supporting the brass (not shown) flanged channel bearing supports 18 are welded to the side walls at 17. The top 20 has a cavity 21, to seat the spring buckle, and recesses 22, 23 in walls 24, to locate the lowermost leaves of the spring. A door 35 with handle 37 is



mounted on lugs 36 and located when closed in recess 38, a cill 39 being welded to the oil well plate 5 which is secured by welds 41, 42, 43 and 44 to the side walls, shield-plate 6, and lip 4. The plate 5 has a lip 9 to minimise splashing. — (Accepted January 15, 1940.)

COMPLETE SPECIFICATIONS ACCEPTED

513,533. Standard Telephones & Cables Ltd., and Terry V. J. Electric signalling systems.

513,782. Walker Bros. (Wigan) Ltd., Walker, D., and Elford, E. J. Vehicles, and loading means for the same.

513,804. Baseler, W., Zangl, H., and Dietrich, J. Sleepers for rail tracks and especially for railway tracks.

514,154. Marr, J. Signalling systems.

514,256. Bavin, T., and Crook, A. E. Track vehicles.

514,314. Scharfenbergkupplung A.G. Automatic couplings for vehicles.

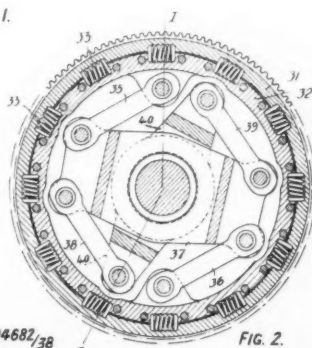
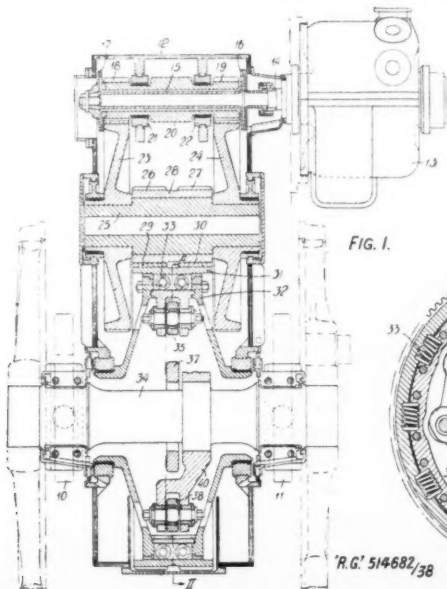
514,501. Morrison, A. C., and Associated Electric Vehicle Manufacturers Limited. Electrically-propelled vehicles.

514,532. Maley, A. W., and Taunton, E. M. Brake rigging for rail vehicles.

514,682. Tennant, W. J. (Aktiebolaget Ljungströms Angturbin). Speed-reduction gears for turbine-driven locomotives.

514,813. Automatic Telephone & Electric Co. Ltd., and Roseby, P. N. Electrical signalling systems.

514,826. Westinghouse Brake & Signal Co. Ltd., Kershaw, A. G., and Simmons, A. W. Fluid-pressure braking-apparatus.



PARLIAMENTARY NOTES

Accommodation for Troops at London Termini

Mr. D. Robertson (Streatham—C.), on June 26, raised the question of the welfare arrangements for soldiers in Euston, King's Cross, St. Pancras, and Liverpool Street stations. He said he had found to his very great regret that there was a total lack of rest accommodation for the thousands of soldiers, sailors, and airmen who passed through those great stations by day and by night, and that catering facilities were either absent or hopelessly inadequate. If a soldier wished to wash himself he had to pay 3d.—if he could get a basin to wash himself in—and if he wished to shave himself while washing he was taxed another 4d. for that. It was distressing to see men lying on trolleys by night, and to hear from Metropolitan policemen, military policemen, railway transport officers and voluntary workers connected with the Y.M.C.A., the Salvation Army, and the Church Army of the conditions that prevailed in those stations—for instance of 70 men lying on the floor of the waiting room at King's Cross. At Euston there was no rest room accommodation at all for the troops. There was a small canteen operated by the Y.M.C.A. at the extremity of the station. Frequently the entrance to it was cluttered up with mail bags, and in the darkness it must be exceedingly difficult for any soldier or sailor to find it. At King's Cross conditions were similar. At St. Pancras there was no accommodation. Troops slept on the floor of a small waiting room. There was nothing to tell a soldier that there was a little Salvation Army hut where he could get food within the limits of his meagre resources. The result was that the soldiers went into the more expensive places, whose prices they could ill-afford. He found on further investigation that the welfare organisations—the Y.M.C.A. at Euston and at Liverpool Street, the Salvation Army at King's Cross and St. Pancras, and the Church Army at Paddington—had for months been trying to put their case before the railway companies and the Welfare Department of the War Office, but without success. They had been thwarted, frustrated, obstructed, and nothing had happened. He read a letter from the Metropolitan Secretary of the National Council of Young Men's Christian Associations with reference to Liverpool Street station. In the course of the letter it was stated that some weeks ago 40 men were sleeping on the platforms and trolleys, in addition to those who packed the floor of the canteen. The use of a room was applied for and they were given one of the empty offices. Mattresses and blankets for 25 men were placed there, and a man was employed to look after the place. "To our great surprise" said the letter, "we

received an official communication from the railway company stating that they proposed to charge us £65 per annum for the use of this room. We have not, of course, agreed to this."

Mr. Robertson said the room was a kind of "Black Hole of Calcutta." There was room for about 15 men to sleep on the floor, on pailiasses. The atmosphere was appalling. There was a Welfare Department at the War Office, but he believed that welfare had been talked about and not done. The railway companies could not shuffle off their responsibilities in this matter, as they had undoubtedly done at King's Cross, to places outside the station and not within the station precincts, at Euston to places where one would not have looked, and at St. Pancras, providing no place at all. Every effort was made to force the troops into the catering establishments of the companies or of their licensees. He had the feeling, and it was shared by railway transport officers and other voluntary officers, that the railway companies had deliberately frustrated this welfare movement because of the loss of revenue to themselves in selling things and the loss of revenue to their tenants in selling cigarettes, tobacco and chocolate.

The railway companies had told the Y.M.C.A., the Salvation Army, and the Church Army that they should buy their tobacco, chocolates and cigarettes from the retail establishments in those stations. The voluntary bodies were trying to sell the troops something at cost price, but were compelled to buy from the retail organisations at the full retail price, less 5 per cent. He charged the Director of Welfare, and those responsible for his work, with neglect. He charged the directors of railway companies and their managers with neglect and with a great want of sympathy, and he hoped that the House would send out a message that would bring that state of affairs to an end.

Mr. H. W. Butcher (Holland-with-Boston—Lib. Nat.) said that the railway companies had spent large sums of money during these months of war upon boasting and placarding in order to say how they were serving the people. They had heard that night how the railway companies were serving the soldiers. In the months just before the war the railway companies came squealing for a "square deal." Was there to be a square deal for the railway companies and their shareholders, but a dirty and raw deal for the serving man? He felt that it would be more desirable if Lord Stamp, President of the London Midland & Scottish Railway, before he took on additional duties as part-time Economic Adviser to the Government, had made quite sure that the ordinary

soldier who travelled on his line was treated with the same consideration as the fare-paying passenger. In regard to animals, the railway companies were under a statutory obligation to observe certain conditions. Why was not the same consideration extended to the serving men? The statement about the way in which the companies sought, in a time of national emergency, to extract from voluntary organisations very heavy rents in London, when property was very difficult to let, was a revelation to the House and a disgrace to the country.

Sir Joseph Nall (Manchester, Hulme—C.) said he did not believe any member of the War Office welfare organisation had taken the slightest trouble to make any enquiry and that there was a complete lack of interest, and of co-ordination between the local authorities, the Ministry of Transport and the railway companies. The railways did cater for the carrying of troops quite reasonably, but the military authorities in sending men on leave seemed to take no notice whatever of train connections. The Ministry of Transport should talk to the railway executive and urge them to make some sort of contact between their running departments and the refreshment people, so that refreshment rooms could be open when trains arrived or when the men were waiting in the station.

Mr. J. Maxton (Glasgow, Bridgeton—I.L.P.) said it was terrible to think that while Members of the House and business men who travelled between Glasgow and London could have all the luxuries of the hotels and the dining rooms and could have first class sleepers, men who had had terrible experiences in Norway had to lie upon the platform among the mail bags when they had to spend a number of night hours at Euston waiting for a train to Scotland. It would not have been too much to have thrown open the doors of Euston Hotel to them.

In the course of further discussion in which several members spoke on lines similar to the earlier speakers, Mr. Hubert Beaumont (Batley and Morley—Lab.) said that if the soldiers did not make secure this land there would be no railway services from which the directors and shareholders could get their profits. The soldiers in guarding the railways were performing a very valuable service to the railway companies, and he had yet to be informed that the railway companies were paying anything towards this police service.

Mr. R. H. Etherton (Stretford—C.) said that conditions were not different at Manchester, and no doubt it was the same at other large stations.

Mr. Richard Law (Financial Secretary to the War Office) said he made it his business to go to the northern termini and see what was happening. He went there late one Saturday night, and he found nothing that tallied in any way with Mr. Robertson's descrip-

OFFICIAL NOTICES

Bombay, Baroda and Central India Railway Company

NOTICE IS HEREBY GIVEN that the ONE HUNDRED AND FIFTY-THIRD GENERAL MEETING of the Bombay, Baroda & Central India Railway Company will be held at the temporary offices of the Company, "Guildcroft," Epsom Road, Guildford, on Monday the 15th July, at 12 noon precisely:

- (1) To receive the Directors' Report and Accounts.
- (2) To declare a dividend.
- (3) To transact the General Business of the Company.

Warrants for the guaranteed interest and dividend will be forwarded on the 15th day of July to Stock-

brokers registered in the Company's Books on the 19th day of June, 1940.

By Order,

N. LINCOLN, Secretary.

N.B.—A copy of the Directors' Report and Accounts can be obtained by any Stockholder on application to the Secretary.

Offices: The White Mansion,

91, Petty France,

Westminster, S.W.1.

26th June, 1940.

[Temporary Offices:—

"Guildcroft,"

Epsom Road, Guildford]

OFFICIAL ADVERTISEMENTS

OFFICIAL ADVERTISEMENTS intended for insertion on this page should be sent in as early in the week as possible. The latest time for receiving official advertisements for this page for the current week's issue is noon on Wednesday. All advertisements should be addressed to:—*The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

tion. Various people at the station told him he had chosen an unfortunate night, and that if he came in the week he would see a different picture. He went again about midnight in the middle of the week, and although there was obviously more movement of troops and more going on at the station generally, normally there were no signs of the conditions described by Members. Conditions at these stations were not everything they would like, but improvements were being made and would continue to be made. At King's Cross there was a room for the soldiers, and there were two canteens run by the Salvation Army. The attack which had been made on the welfare officers was in no way justified. Another room had been made available at King's Cross, and it was being provided with washing facilities. That was one definite improvement that had been made. With regard to St. Pancras, Liverpool Street, and Euston, negotiations were going on at the present time to obtain better accommodation for the voluntary societies. These negotiations were not being held up by finance. The problem was to find suitable space without inconveniencing the railway companies and the flow of traffic. The problem was regarded seriously by the War Office and certain positive steps were in train to improve it.

Mr. E. Shinwell (Seaham—Lab.) asked why Service men could not go to the ordinary refreshment bars available to the public at railway stations, and obtain tea, coffee, and other things at reduced prices.

Colonel H. Guest (Plymouth, Drake—C.) hoped that the Minister of Transport would be drastic in the steps he took with the railway companies to compel them to make accommodation available for the serving soldiers.

Mr. T. E. Harvey (English Universities—Ind.), on July 2, asked the Secretary of State for War whether he would give the assurance that rest-rooms, together with suitable washing facilities, were to be provided for the use of the men of His Majesty's forces at the principal railway terminal stations; and also that opportunities for obtaining refreshments at moderate prices would be assured to them during the course of long railway journeys.

Mr. T. Magnay (Gateshead—Lib.

Nat.), also asked the Secretary of State for War if he had been able to do anything in the way of improving the accommodation for the troops at the railway termini in London and also for their greater comfort when travelling.

Mr. R. A. Eden (Secretary of State for War): The main-line railway termini in London have been inspected by representatives of the War Office and of all the philanthropic bodies who deal with troops at these termini, and details of the additional accommodation and facilities required are being worked out. The object is to provide at each station a rest room, dining room, cooking facilities, information bureau, free washing room and lavatories, and free cloakroom on the same scale as now exists at Victoria station. As soon as possession of the rooms required is obtained, the work of structural alteration and equipment will be begun. The Ministry of Transport have been informed of the proposals respecting Euston station, and have arranged with the London Midland & Scottish Railway Company for all the additional accommodation required to be made immediately available. The work of preparing this accommodation has already begun. Reports have been called for from Command Welfare Officers regarding all important main-line stations outside London, with the same object in view. As regards refreshments, in addition to the normal facilities available to all travellers, there is a number of stations at which local philanthropic bodies cater for men in uniform free of charge.

Mr. W. Glenvil Hall (Colne Valley—Lab.): Will the railway companies provide the accommodation free of charge or will they charge rents?

Mr. Eden: The object is to provide certain facilities free of charge.

Sir William Davison (South Kensington—C.): Will the accommodation be made available immediately or will it take some weeks?

Mr. Eden: I have been into this matter personally, and there is already a considerable improvement at Euston.

Mr. Kenneth Lindsay (Kilmarnock—Nat. Lab.): Are there funds from the War Office to assist these Welfare Societies?

Mr. Eden said that Mr. Lindsay had better put that question down on the Paper. The important matter was to

get things done quickly. That was being done.

The matter is referred to in an editorial note at page 1 and the latest developments are indicated at page 22.

Contracts and Tenders

The Bengal-Nagpur Railway has placed the following orders:—

British Ropes Limited: 2 tons of flexible galvanised steel wire rope.

Hadfields Limited: 50 cast steel wheels.

Taylor Bros. & Co. Ltd.: 200 carriage and wagon steel tyres.

North British Locomotive Co. Ltd.: 2 pairs of cast steel skeleton wheels.

Miller & Co. Ltd.: 190 chilled cast iron wheels.

Among the products of which, according to the current issue of the *Board of Trade Journal*, an agent established at Santiago wishes to obtain the representation of United Kingdom manufacturers, are diesel engines, tools and drills, and engineering products (Ref. No. 413).

The Trade Commissioner at Calcutta reports that the Indian Stores Department is calling for tenders for the supply and delivery before October 1 of copper materials for the railways, including sheets, plates, tubes, and rods. Tenders will be received by the Chief Controller of Stores, Indian Stores Department, Mechanical Section, New Delhi, up to July 4, 1940.

The Anglo-Egyptian Chamber of Commerce announces that Mr. R. E. Thomas, Chief Prospecting Engineer of the Egyptian Government, and who from his office in London arranges also for the shipments of Egyptian Government purchases to Egypt, is to act generally in liaison with the Ministry of Shipping, and will be in constant touch with the Ministry in connection with the amount of cargo space considered essential. The Ministry has declared its readiness to give all possible assistance, but has asked that some form of centralisation should be instituted so that tonnage available may be allocated as fairly and quickly as possible. Members of the Anglo-Egyptian Chamber of Commerce are invited to inform the Secretary of details of weight and space requirements, consignees, any delays in shipment, and orders received.

Railway Stock Market

A brighter trend has been observable in most sections of the Stock Exchange in response to moderate improvement in demand. This has resulted from general recognition that the recent reactionary market conditions had reduced security values to unduly low levels. Sentiment benefited from hopeful anticipations in connection with the next developments in the war, while an excellent impression has been created by the large demand for National War Bonds. Although British Funds and other high-class investment stocks participated in the upward trend of values, the latter was chiefly reflected in securities of the equity class, which have recovered part of the heavy declines recorded in recent weeks. Market fears that the danger of air raid damage might lead to ultra-conservative dividend payments are now regarded as having been much exaggerated, and less pessimistic views prevail as to dividend prospects of home railway junior stocks. The forthcoming interim statements should, of course, provide important indications as to the position and outlook.

It is recognised that markets will move very closely with the nature of the war news and that security values will no

doubt continue to fluctuate sharply. Until the volume of Stock Exchange business approaches more normal proportions, moderate buying or selling must be expected to result in disproportionate adjustments of quotations from time to time. Better demand was reported for home railway securities than for some weeks past, and chief attention tended to centre on preference and guaranteed stocks following the substantial marking down of prices in evidence recently. Nevertheless, buying was fairly widely spread, and although in all cases best prices touched this week were not fully held, the improvement embraced junior stocks as well as the debentures.

Great Western ordinary at 27 showed a rally of four points, while the 5 per cent. preference at 61½ was above the lowest price recorded last week, and the guaranteed stock improved on balance from 94 to 96½. At 93 the 4 per cent. debentures showed a fractional gain. Demand for L.M.S.R. 4 per cent. senior preference has resulted in marking-up of the price from 38 to 41 at the time of writing, while the 1923 preference rallied from 24 to 27½. Moreover, L.M.S.R. guaranteed recovered from 68½ to 71½.

The ordinary stock at 12 was two points better on the week. While the 5 per cent. debentures were maintained at 104, the 4 per cent. debentures moved up from 84 to 87, buyers being attracted by the yield, which compares favourably with that on many other good class investment securities.

Southern preferred was a point better at 38, and the deferred 9½, compared with 7½ a week ago, while the 5 per cent. preference was 61½ and has continued to have the same quotation as the equivalent Great Western stock. Southern 4 per cent. debentures were two points higher at 89½. Among L.N.E.R. issues the first guaranteed rallied from 58½ to 61, and the second guaranteed was 42½. Furthermore, a rise from 22 to 26½ was recorded in the first preference; the second preference improved two points to 9½. As regards L.N.E.R. debentures, the 3 per cents were better at 58½ and the 4 per cents improved to 78. London Transport "C" was around 26. Foreign railway securities again attracted very little attention, but Canadian Pacific and Grand Trunk debentures made better prices.

Traffic Table of Overseas and Foreign Railways Publishing Weekly Returns

Railways	Miles open 1939-40	Week Ending	Traffic for Week		No. of Weeks	Aggregate Traffic to Date			Shares or Stock	Prices						
			Total this year	Inc. or Dec. compared with 1939		Totals		Increase or Decrease		Highest 1939	Lowest 1939	July 2, 1940	Yield % (See Note)			
						This Year	Last Year									
South & Central America	Ancotagasta (Chili) & Bolivia	834	23.6.40	£ 17,510	+	£ 5,380	25	£ 469,900	£ 325,020	+	£ 144,880	Ord. Stk.	10½	4½	4½	Nil
	Argentine North Eastern	753	22.6.40	ps. 158,100	—	ps. 36,400	52	ps. 7,946,700	ps. 8,279,300	—	ps. 332,600	"	4½	2	2	Nil
	Bolivar	174	May 1940	4,410	—	540	22	20,650	20,300	+	350	6 p.c. Deb.	7½	5½	6½	Nil
	Buenos Ayres & Pacific	2,801	22.6.40	ps. 1,035,000	—	ps. 396,000	52	ps. 70,099,000	ps. 74,190,000	—	ps. 4,091,000	Bonds.	5½	4½	6	Nil
	Buenos Aires Central	190	11.5.40	£ 890,100	—	£ 820,900	46	£ 4,355,600	£ 4,575,800	—	£ 220,200	Ord. Stk.	5½	2	2	Nil
	Buenos Aires Gt. Southern	5,082	22.6.40	ps. 1,706,000	—	ps. 181,000	52	ps. 118,091,000	ps. 118,869,000	—	ps. 778,000	Mt. Deb.	14	8	13½	Nil
	Buenos Ayres Western	1,930	22.6.40	ps. 671,000	—	ps. 56,000	52	ps. 39,907,000	ps. 38,665,000	+	ps. 1,242,000	Ord. Stk.	13½	4½	4½	Nil
	Central Argentine	3,700	22.6.40	ps. 1,374,000	—	ps. 858,750	52	ps. 89,081,000	ps. 100,473,750	—	ps. 1,392,750	"	11½	4	3	Nil
	Do.	...	...	...	...	...	...	...	...	...	...	Did.	4	1½	2	Nil
	Cent. Uruguay of M. Video	972	22.6.40	23,613	+	5,387	52	1,115,082	962,509	+	152,573	Ord. Stk.	2½	1½	1	Nil
	Costa Rica	188	Mar. 1940	22,121	—	1,348	40	158,217	200,680	—	42,463	Stk.	24½	18	17½	11½
	Dorada	70	May 1940	13,000	—	1,500	22	59,100	66,800	—	7,700	I Mt. Db.	104½	102	100	6
	Entre Rios	810	22.6.40	ps. 233,700	—	ps. 90,500	52	ps. 12,192,300	ps. 13,250,500	—	ps. 1,058,200	Ord. Stk.	6	3	2	Nil
	Great Western of Brazil	1,016	22.6.40	8,600	—	3,500	25	271,700	226,100	+	45,600	Ord. Sh.	3/-	1/2½	1½	Nil
	International of Cl. Amer.	794	May 1940	\$497,519	—	\$18,755	22	\$2,840,951	\$2,800,927	+	\$40,024	"	7½d.	7½d.	1	Nil
	Interoceanic of Mexico	22½	June 1940	4,760	—	2,025	26	39,435	35,430	+	4,005	1st Pref.	7	7½	6½	Nil
	La Guaira & Caracas	1,918	22.6.40	21,568	+	1,618	25	542,480	465,286	+	77,194	Ord. Stk.	2½	1	1	Nil
	Leopoldina	483	21.5.40	\$282,300	—	\$65,500	20	\$6,192,600	\$6,431,400	—	\$238,800	"	1½	1	1	Nil
	Midland of Uruguay	319	Apl. 1940	12,921	+	6,073	44	106,712	89,923	+	16,789	"	2/-	1	1	NW
	Nitrate	386	15.6.40	5,701	+	1,263	24	80,813	55,717	+	25,096	Ord. Sh.	2½	1½	1½	7½
	Paraguay Central	274	15.6.40	\$3,107,000	—	\$27,000	51	\$160,809,000	\$157,499,000	+	\$3,310,000	Pr. Li. Stk.	45½	36	38½	15½
	Peruvian Corporation	1,059	May 1940	£ 69,707	—	£ 14,276	48	£ 750,190	£ 726,081	+	£ 24,109	Pref.	1½	1½	2	Nil
	Salvador	100	25.5.40	£ 11,810	—	£ 3,340	48	£ 928,424	£ 985,939	—	£ 57,515	Pr. Li. Db.	19½	16	15	Nil
	San Paulo	153½	23.6.40	38,750	—	3,192	25	923,700	802,347	+	121,353	Ord. Stk.	38	20	31½	7½
	Taltal	160	Apl. 1940	3,085	—	1,390	44	26,220	29,225	—	3,005	Ord. Sh.	½	6/6	½	8½
	United of Havana	1,353	22.6.40	20,951	—	6,359	52	1,246,019	1,198,246	+	47,773	Ord. Stk.	2	1	1	Nil
	Uruguay Northern	73	Apl. 1940	1,225	—	492	44	11,226	9,837	+	1,389	Deb. Stk.	2	2	2	Nil
	Canada	Canadian National	23,695	21.6.40	1,012,710	+	318,548	25	21,426,282	16,572,980	+	4,853,302	—	—	—	—
Canadian Northern		...	...	...	—	...	...	...	...	—	4 p.c.	Perp. Dbs.	74½	60	70½	5½
Grand Trunk		...	...	...	—	...	...	...	...	—	4 p.c. Gar.	100½	76	101½	3½	
Canadian Pacific		17,162	21.6.40	686,000	+	213,400	25	14,131,400	11,718,600	+	2,412,800	Ord. Stk.	7½	3½	5½	Nil
India	Assam Bengal	1,329	30.4.40	£ 45,187	+	£ 6,529	4	£ 135,060	£ 120,437	+	£ 14,623	Ord. Stk.	76½	60	72½	4½
	Barsi Light	202	20.5.40	3,810	+	638	7	21,030	16,267	+	4,763	Ord. Sh.	56½	50½	42½	8½
	Bengal & North Western	2,091	31.5.40	110,284	+	15,525	9	580,088	502,024	+	78,064	Ord. Stk.	277	229½	253½	6½
	Bengal Dooars & Extension	161	20.5.40	3,501	+	962	7	18,661	12,662	+	5,999	"	91	84½	215	3
	Bengal-Nagpur	3,269	20.5.40	247,650	+	17,103	7	1,252,050	1,161,007	+	91,043	"	94½	83½	94	4½
	Bombay, Baroda & Cl. India	2,986	20.6.40	263,475	+	22,275	12	2,365,725	2,135,550	+	230,175	"	108	90	102½	5½
	Madras & Southern Mahratta	2,967	20.5.40	189,225	+	3,954	7	959,700	906,339	+	53,361	"	104½	92	98½	7½
	Rohilkund & Kumaon	571	31.5.40	24,297	+	4,882	9	134,865	102,987	+	31,878	"	280	263	270	5½
Various	South Indian	2,531½	20.5.40	121,425	+	7,685	7	598,652	589,624	+	9,028	"	102½	88	86½	5½
	Beira	204	Apl. 1940	74,663	—	—	30	500,580	—	—	—	Prf. Sh.	—	—	—	Nil
	Egyptian Delta	623	10.5.40	4,591	—	602	6	19,436	20,384	—	948	"	—	—	—	—
	Kenya & Uganda	1,625	—	—	—	—	—	—	—	—	—	B. Deb.	55	39	49½	7½
	Manila	...	...	...	—	—	—	—	—	—	—	Inc. Deb.	91½	87½	82½	4½
	Midland of W. Australia	277	Mar. 1940	12,505	—	4,071	40	115,376	138,753	—	23,377	"	—	—	—	—
	Nigerian	1,900	4.5.40	34,011	+	7,782	5	217,465	162,420	+	55,045	"	—	—	—	—
	Rhodesia	2,442	Apl. 1940	389,463	—	—	30	2,631,875	—	—	—	—	—	—	—	—
	South Africa	13,288	8.6.40	647,505	—	5,698	10	6,425,842	6,214,556	+	211,286	"	—	—	—	—
	Victoria	4,774	Mar. 1940	884,029	+	32,550	39	7,583,830	7,069,208	+	514,622	"	—	—	—	—

Note. Yields are based on the approximate current prices and are within a fraction of ½. Argentine traffic is now given in pesos. † Receipts are calculated @ 1s. 6d. to the rupee § ex dividend